

The

## CHEMIST AND DRUGGIST

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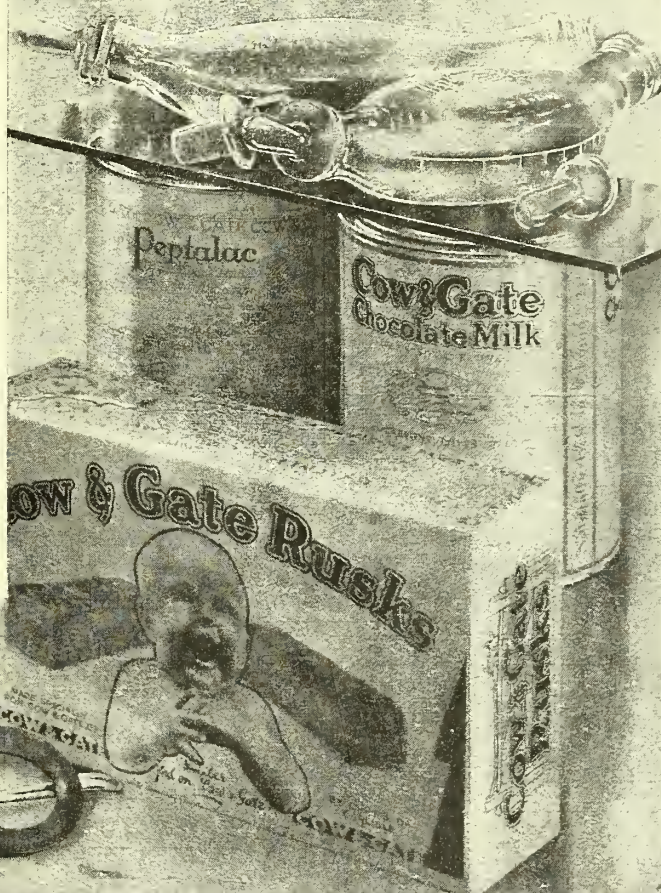
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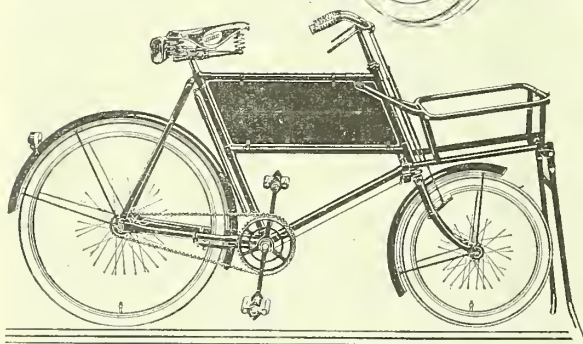
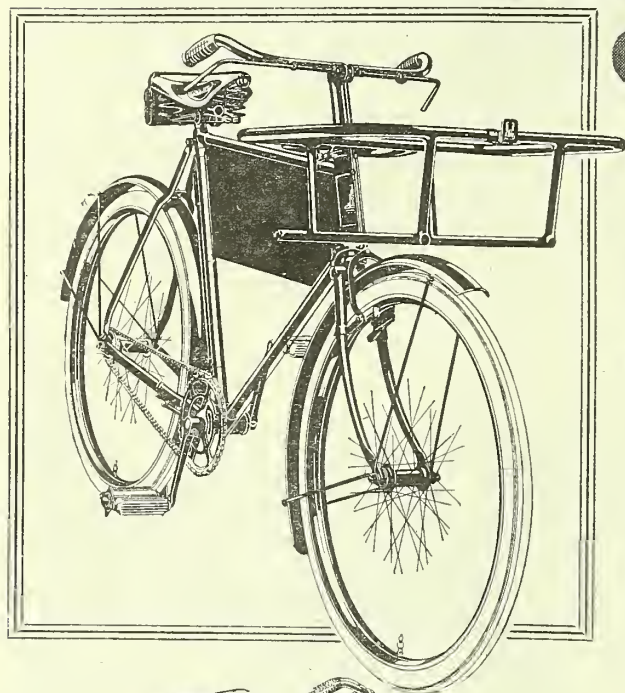


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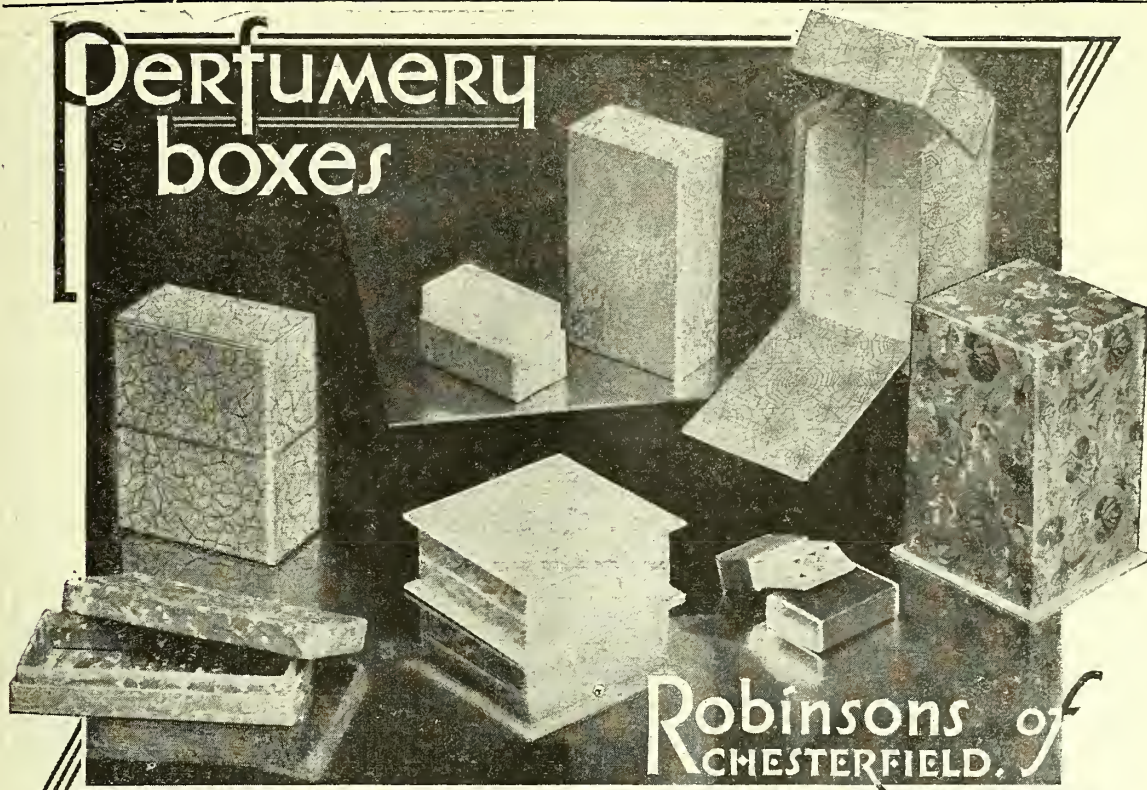
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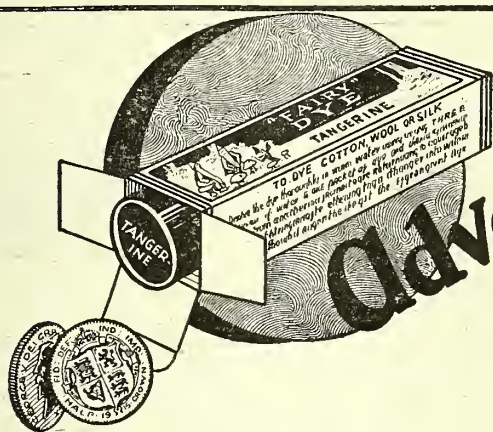
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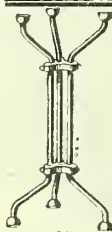
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—CREAM & VIOLA—  
**BOTH MASTER THE HAIR**

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sells at 1/-, 8/- doz.  
Medium size,  
sells at 1/6, 12/- doz.  
Large size,  
sells at 2/6, 20/- doz.

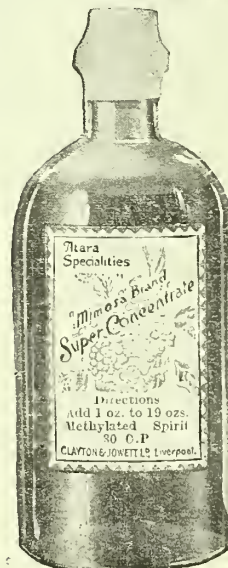
Super to produce **Concentrates**  
**COLOGNE PERFUMES**

ORDINARY  
COLOGNE  
STRENGTH  
10/- Pint.

Eau de Cologne  
only.

TEST  
SAMPLE  
SUPPLIED.

TO PRODUCE  
ONE  
PINT EAU  
DE COLOGNE  
(or any perfume)  
TAKE



EXTRA  
COLOGNE  
QUALITY  
15/- Pint.

Also the following:  
CARNATION.  
CHYPRE.  
EAU DE  
COLOGNE.  
FANTASIA ..  
JASMIN.  
LAVENDER  
WATER.  
LILAC.  
LILY OF THE  
VALLEY.  
MIMOSA.  
OPOPONAX.  
SWEET PEA.  
VIOLET  
and others.

"SUPER-CONCENTRATE" 1 OZ.  
METHYLATED SPIRIT - - 19 OZS.

MIX, AND PERFUME IS THEN READY FOR USE.

By this process, fragrant refreshing Perfumes are possible, costing 1/- per pint, equal to any Continental make.

**CLAYTON & JOWETT, Ltd., 46 Wood St., Liverpool**

# Merit + Advertising = SALES

THOUSANDS  
DAILY  
PRACTISE  
HARLENE  
HAIR-DRILL



FOR 45 years "HARLENE" Toilet Preparations have been welcomed all over the British Isles as the ideal adjuncts to Hair Health and Hair Beauty. The pre-eminent position they enjoy to-day is maintained by their sheer MERIT plus an extensive and forceful Advertising Campaign which is ALWAYS in operation. The result is SALES—REGULAR Sales which YOU should take advantage of by maintaining a COMPLETE stock of the popular "Harlene" Range.

Do You Stock  
These Quick  
Selling Lines?

"HARLENE"  
HAIR GROWER

"CREMEX"  
SHAMPOO POWDERS

"UZON" Brilliantine

"HARLENE" Wave Setting  
LOTION

"Harlene" Camomile  
GOLDEN HAIR WASH

"ASTOL" for Grey Hair

Wonderful Results From a  
**'Harlene'**  
Hair Beauty Bath  
FREE Offer to All!

Make your hair softer, more lustrous, more gleamingly entrancing than ever before—give it a "Harlene Hair-Beauty Bath" to-day and be amazed and delighted at the glorious result!

Notice the added Beauty, the gleaming "Quality" "silkenness" and "life." Just receive a packet of "Cremer" Shampoo Powder and a bottle of "Harlene" Hair-Beauty Bath.

All You Have to Do!

Miniature reproduction of the type of Publicity which appears regularly in the National and Periodical Press.



FREE

"Harlene" Preparations are famous throughout the World. If you like to keep them entirely FREE, you may choose any three and receive them simply by posting the coupon.

**'HARLENE'**  
Hair-Grower

Harlene is the most widely used and most successful Hair Dresser and Hair Health Preparator. It is the Hair's Free Liquid Food—the Chamomile Extract of the Hair-Nutrient—free of all Hair Troubles. Lays off Itch, dandruff, Bristles, Splitting, and Weak Hair Roots. Cleanses, softens, and restores the hair to its natural state.

To BALD MEN

100 and 200ml. bottles. 1/6 and 2/6 per bottle.

2 'CREMEX' SHAMPOO

100 and 200ml. bottles. 1/6 and 2/6 per bottle.

3 'UZON' BRILLIANTINE

100 and 200ml. bottles. 1/6 and 2/6 per bottle.

4 'HARLENE' WAVE-SETTING LOTION

100 and 200ml. bottles. 1/6 and 2/6 per bottle.

5 'ASTOL' for GREY HAIR

100 and 200ml. bottles. 1/6 and 2/6 per bottle.

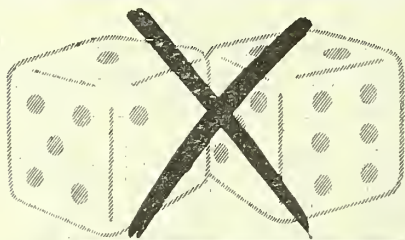


**SAMPLE COUPON**  
On receipt of this Coupon and postage to nearest Post Office, send to: Harlene Ltd., 20/26 Lamb's Conduit St., London, W.C.1. Name and address of sender will be sent to any address in the Harlene Range. Date Expires: 31st Dec. 1932. No cash value. SPECIAL OFFER: 1/6 and 2/6 per bottle.

TRADE TERMS ON APPLICATION

Kindly address all communications to the Company

**EDWARDS'**  
**HARLENE**  
LIMITED  
20/26 Lamb's Conduit St.  
**LONDON**  
W.C.1



Don't take a chance  
with inferior  
haircreams

**YOU'RE  
SAFE WITH BRYLCREEM**

*Because its Quality NEVER Deteriorates*

Brylcreem—the most amazing success—the original  
“NO GUM, NO FLAKE” dressing.

Fixes the hair—but does not go dry. Keeps indefinitely  
and does not separate or go rancid in stock.

Promotes growth, eradicates and prevents scurf.

**THE COUNTY PERFUMERY COMPANY**  
BRADFORD STREET, BIRMINGHAM.

use **PREEMO**  
**PERFUME ESSENCES**

In the MANUFACTURE of your  
TOILET PREPARATIONS.

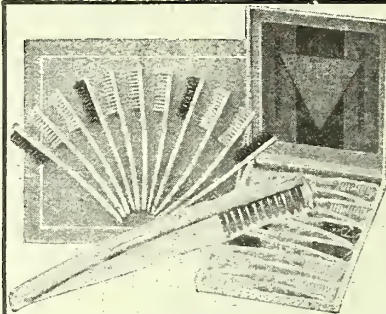
You can always rely on the  
quality and uniform strength  
of the

**PREEMO ESSENCES.**

They will mix freely with spirit,  
water, fat and oil.

Send for Free Samples  
and Price List.

**THE PREEMO CO.**  
63 High Holborn, London, W.C.1



• THE •  
“**STATIC**”

Reg. No. 523,323

**TOOTH  
BRUSH**  
BONE HANDLES  
WHITE,  
UNBLEACHED,  
OR BLACK  
BRISTLES

Names free on  
6 doz. lots,

**6/6 per doz.**  
From all wholesalers

MANUFACTURERS:

**W. R. SPEER & SON, 215 Dalston Lane, E.8.**  
EST. 100 YEARS.

**COST ONE GROSS 8/-  
SELL FOR 1/6 doz.  
PROFIT-10/-**

**125%**



**OCEAN BLADES (Gl. Britain) Ltd., Sales Dept., 1-6 Bridgewater Place,  
BLADES also made under customer's own name. State quantity. E.C.1**

**“OCEAN”**  
**BLADES** BRITISH AND  
BETTER THAN EVER!

Made in our OWN Factory from first quality  
Steel by improved process guaranteeing super-  
keen edge. A firm favourite. Over a hundred  
million sold to date. Sure profit and no risk

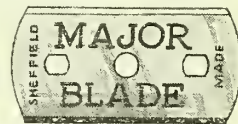
**“CONQUEROR”**

**BLADES—Another Winner!**  
Gross, 5/6. Retail, 12 for 1/-

Knock-out value in a penny blade.  
Best Silver Steel only used. Samples  
and attractive Showcards Free.

Leading Wholesalers stock both “OCEAN”  
and “CONQUEROR.” For direct supplies  
send P.O. or cheque to: Clerk. 6257

**Sheffield's**  
**Newest Shaving**  
**Edge**



Regd. Trade Mark 530,151/79025

**RETAIL PRICE 1d. EACH; 6 FOR 6d.**

Made on latest automatic machinery,  
ensuring utmost uniformity of keen edges,  
on Steel heat-treated under rigid scientific  
control... **THE SMOOTHEST SHAVER**

SEND FOR FREE SAMPLE AND TERMS TO:

**DOMINION STEEL CORPORATION LTD.**  
“Fleet” Works, Queen's Road, SHEFFIELD.  
ADVERTISED ON L.G.O. 'BUSES.

**HINDS**  
HONEY & ALMOND  
**CREAM**  
*The penetrating  
liquid cream*

*Use HINDS always  
after washing your hands*

## DISPLAY THIS SALES-PROMOTING SHOWCARD . . .

ORDER NOW . . . EITHER  
DIRECT OR THROUGH  
YOUR WHOLESALE

Reap the full benefit of the big national advertising campaign being run for Hinds Honey and Almond Cream . . . display this profitable line by the means of this attractive showcard.

There are millions of women who are potential customers for hand preparations . . . a wide new field of buyers to which Hinds Honey and Almond Cream advertising is appealing.

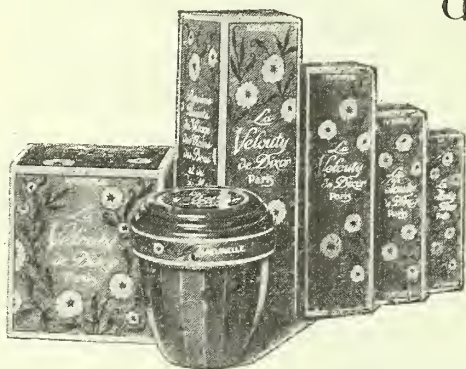
Link up with this gigantic sales effort . . . secure your share of this new custom . . . display Hinds in your window or on your counter.

LYSOL LTD., RAYNES PARK, LONDON, S.W. 20

The original combined Cream and Powder

# VELOCITY

de DIXOR



*The advertised line that you are asked for.*

NOW ON P.A.T.A.

Samples free upon receipt of trade card or billhead.

PRICES :-	No. 1. Handbag tube	3/- doz.	Retail -/4½
	No. 2. Small tube	4/- "	" -/6
	No. 3. Medium tube	7/- "	" 1/-
	No. 4. Large tube	14/- "	" 2/-
	No. 5. Super tube	22/- "	" 3/-
	Pots (glass)	21/- "	" 2/9
	Pots de luxe (unbreakable)	36/- "	" 4/6

*Made in four shades :*

WHITE, IVORY, NATURAL and OCHRE.

Obtainable from your regular Wholesaler or direct from the Manufacturers:

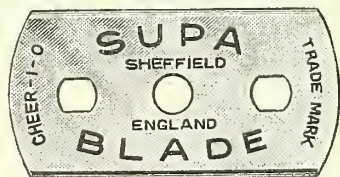
**DIXOR, LTD., 68, Newman St., Oxford St., London, W.1**

*Sole Distributors for*

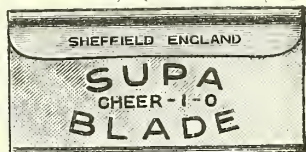
Northern Ireland : ROBERT MAYRS & CO., 43 Chichester Street, BELFAST  
Irish Free State : MAY, ROBERTS & CO. LTD., Grand Canal Quay, DUBLIN

## SUPA CHEER-I-O BLADES

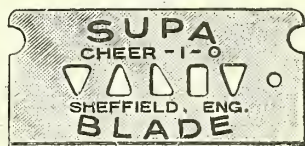
**2<sup>D</sup>**  
EACH



IN  
THREE  
PATTERNS



IN  
THREE  
PATTERNS



*Manufactured by*

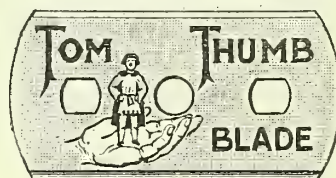
**THE WAFER RAZOR Co., Ltd.**  
EARSHAM STREET, SHEFFIELD

## HANG IT

UP AND LET  
IT SELL ITSELF

Supplied on cards or  
boxed. Show cards  
with every order.

**1<sup>D</sup>**  
Each  
Retail



British Made

MADE BY  
GEORGE IBBERTSON & CO.  
Razor Works, 146 West St., Sheffield

## Yes! STAINLESS

**—not Chrome Plated—**  
to **SELL** at this price!

Rodgers' Stainless Scissors  
at this exceptionally low  
price open up an entirely



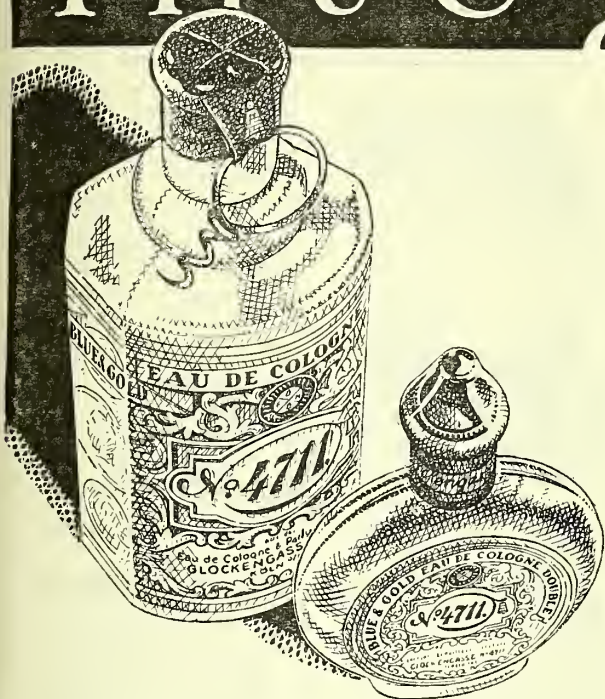
—and

made by  
**RODERS**

new source of business. Be one of the  
first to show them. No. P1188 Nurses'  
5 in. Scissor, Stainless throughout. **3/-**  
per pair  
**JOSEPH RODGERS & SONS, LTD.**  
Cutlery to His Majesty, No. 6 Works, SHEFFIELD

\* ✠  
Trade Mark  
Granted 1682

# Integrity



★ For nearly 150 years "4711" Genuine Eau de Cologne has earned and deserved a world-wide reputation for quality by undeviating purity and excellence. Never at any time in the past has anything been allowed to interfere with that high standard, nor at any time in the future will any circumstances be permitted to alter the rigid policy that determines the prestige of "4711" Genuine Eau de Cologne.

★ "4711" Genuine Eau de Cologne is distilled in strict conformity with the original recipe—a jealously guarded secret of the House of "4711"—it is prepared, NOT with de-natured (so called 'duty-free') alcohol, but with the best and purest highly rectified spirit obtainable.

"4711" Genuine Eau de Cologne needs no apology when offered for sale.

*Sole Concessionaires for Great Britain and Ireland:*

R. J. REUTER COMPY., LIMITED, 69 Carter Lane, LONDON, E.C.4



**Genuine**  
Eau de  
**Cologne**

BLUE & GOLD LABEL



To how many of your townspeople are you just another chemist's shop "down the town"? Advertisement spaces and handbills have perhaps failed to attract them to your shop—it needs *personal contact* by attractive sales letters run off on the Roneotype and delivered by the postman right into the prospective customers' homes.

Hundreds of chemists are using Roneotypes, not only to increase their sales, but also to save printing costs, as this machine will *print* letter-heads and bill-heads, labels, leaflets, blotters and other publicity matter at a fraction of ordinary costs. The Roneotype is British made and carries a 10 years' guarantee and *free letter-writing service*.

"I think the small man is the man for a Roneo. In my own case very often I only want 100 letters. If I could not reproduce these they would never come into existence at all, as a Printer would either refuse the job or charge prohibitively."  
Chemist, Shanklin.

Let us send you our new brochure "Does Circularising Pay?" Pin this coupon to your letter-head and post to us.  
(1d. stamp)

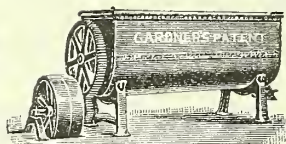
# RONEO

## RONEOTYPE MACHINE

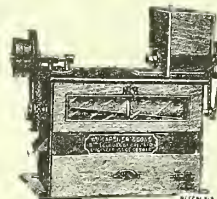
To RONEO LTD., 5/11, HOLBORN, LONDON, E.C.1  
Please send me a copy of your booklet, "Does Circularising Pay," and price and particulars of Roneotype Machines, without obligation

A304

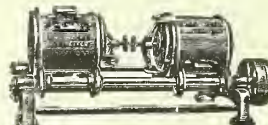
# GRINDING SIFTING MIXING



Patent "Rapid" Mixer.



Patent "Rapid" Sifter.



Gardner Ball Crushing Mill.

for Chemical purposes must be rapid, super-fine, of laboratory accuracy, and absolutely consistent.

Gardner machines perform all these operations in the most efficient way.

They are economical and efficient; a high standard is maintained in the quality and quantity of their output.

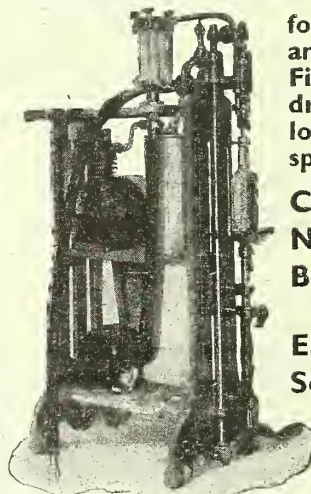
Details and Catalogue of all Gardner plants from

**WM. GARDNER & SONS (Gloucester) LTD.**

BRISTOL ROAD, GLOUCESTER

Telephone: 2285 (2 lines),  
Telegrams: "Gardner, Gloucester."  
London Office: 19 Gray's Inn Chambers  
28 High Holborn, W.C.1.  
Telephone: Chancery 7347.

## ROBERTS' PATENT "LEO" VACUUM FILLER



for Glass, Stone, and Tin Bottles. Fills all sizes from drachm to quart—long, short or sprinkler neck.

**Clean and Rapid  
No Over Filling  
Broken Bottles  
Rejected  
Easy to Clean  
Self Rinsing**

WRITE FOR  
PARTICULARS

**Roberts' Patent Filling Machine Co.**

T. ROBERTS, Proprietor,

33 Roundcroft Street, Bolton, Lancashire  
Makers of every description of Bottle Filling and Shallow Jar and Tin Filling Machine for the Chemists' use.

ALL RIGHTS RESERVED

# SALES—SATISFACTION

for YOU for Your Customers

When you sell Sherley's Dog and Cat Medicines you have the satisfaction of knowing that your Customers will be Satisfied, and they will come again. These popular lines are renowned for their Purity, Safety and

Efficacy, and the Extensive Advertising Campaign which is always in operation ensures a steady and continuous demand. They show good profits and are supplied on terms which eliminate all risk of loss.

**DOG OWNERS ARE INSISTING ON SHERLEY'S**

## SHERLEY'S DOG & CAT MEDICINES

### QUANTITY TERMS

—are available for SHERLEY'S Tonic & Condition Powders and Worm Remedies—now packed on attractive Display Cards. Also for £2 Assorted Parcels.

Full Literature and Sales-Compelling Show Cards are available. Send a Postcard for particulars to:—

A. F. Sherley & Co., Ltd.,  
18 Marshalsea Road,  
LONDON . . . S.E.1.

### LACTOL AND LACTOL BISCUITS

### WE SUPPLY DECORATED TINS FOR PACKING OINTMENTS AND OTHER PRODUCTS.

SAMPLES AND PRICES UPON REQUEST.

THE CALDICOT TIN STAMPING WORKS LTD.

CALDICOT, Nr. CHEPSTOW, Mon.

### BATTLE'S VERMIN KILLER

Of all Patent Medicine Houses at 3/-, 5/- and 9/- per dozen.

In packets at 5d., 9d., and 1/3 each. (P.A.T.A.)

The sure destructive agent which may be confidently recommended by Chemists for quick clearance of rats and mice. (Users' testimonials on request.)

Prepared only by  
J. C. M. BATTLE, Ph.C., LINCOLN

### Why CATALINE Pays to Stock

BECAUSE it enjoys the largest sale of any Cattle Medicine Preparation and is on the P.A.T.A.

BECAUSE it is consistently advertised and all advertisements refer to the Chemist as the source of supply.

BECAUSE it is well packed, does what it is advertised to do, and shows the trade a satisfactory profit.

BECAUSE we do not employ travellers to call on Farmers or solicit orders at cattle fairs or markets.

One size, retailed at face value, viz.: 3/9 per bott.

Cash with order terms.

1 doz. 36/-, 3 doz. at 35/6, 6 doz. at 35/-, 12 doz. at 34/6 per doz. CARR. PAID. CASES FREE.

Stocked by most Wholesale Houses.  
THE CATALINE CO., LTD., Bristol

## LABOUR SAVING DEVICES

*The way to get ahead is to use the one you now have—*

### and The "LAUDER" BOTTLE FILLING MACHINES

As supplied to the leading Manufacturing and Pharmaceutical Chemists, Perfumers, Toilet Requisite Manufacturers, etc., at Home and Overseas, the many repeat orders being the most conclusive proof of satisfaction.

Prices range from 13/6 to £12 10s. (Our new compressed air type):

*But why not write for particulars to-day?*

Sole Manufacturer:

**L. T. LAUDER**

4 MILES HILL STREET, LEEDS, 7

Phone : 43039

Wires : Phone 43039 LEEDS

## SOLVO SELLS ITSELF

SOLVO gives a good margin of profit to the Chemist and is economical for the customer because it contains nearly three times as much paper as the "so-called" cheap varieties. It pays to stock and display SOLVO.

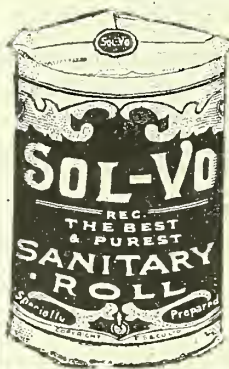
Why not give it a trial?

Simply attach your label to the accompanying form and send it, together with 16/6, to

FORD, SHAPLAND & CO. Ltd.

Gt. Turnstile, High Holborn, London, W.C.1

TELEPHONE: HOLBORN 4635.



### TRIAL PARCEL.

1 doz. Rolls : - 1 doz. Packets :  
1 Cut-out: 100 "Personal Hygiene" Leaflets  
Cash 16/6 should accompany every order.

Please send me/us your Trial Parcel and Display Material for which cash value 16/6 is enclosed

Date

ATTACH YOUR LABEL  
HERE

### WINNER STOCKING DYES

Make OLD, FADED or SPLASHED STOCKINGS of any material like NEW again.

Smartly packed in Waxed Tubes and Cartons. Supplied in 12 Latest Stocking Colours:—Copper Beech, Suntan, Nude, New Brown, Beige, Bulrush, Cocoa, Florence Mills, Rose Glow, Smoke Grey, Dago, Gunmetal. Price 2/- per dozen. Retail 3d. per Tube. Very attractive Display Case free with one gross. Order to-day from:—

WHITAKER & CO. (Kendal) LTD.



### WINNER HOME DYES

THE FINEST OBTAINABLE for WOOL, SILK, COTTON, etc.

Smartly packed in Waxed Tubes and Cartons. Supplied in 24 Specially Concentrated Past Colours:—Black, Navy Blue, Blue, Saxe Blue, Royal Blue, Fawn, Brown, Dark Brown, Nigger Brown, Purple, Lavender, Mauve, Green, Dark Green, Emerald, Red, Pink, Cherry, Old Rose, Grey, Cream, Yellow, Orange, Brick. Price 2/- per dozen. Retail 3d. per Tube. Very attractive Display Case free with one gross.

Dye Specialists for Chemists, KENDAL, ENG.

# PARAFFINUM LIQUIDUM

EXTRA HIGH VISCOSITY

HOLROYD'S OIL & CERESINE CO., LTD.  
3 New London St., London, E.C.3. Phone : 3355 Royal, Wires: Enriholroyd Pen.

INVENTORS

## Small Rotary Pill Cutting Machine & Piping Press.

ASK YOUR AGENTS FOR PINDAR & CO.'S MACHINES—ORIGINAL MANUFACTURERS.

This is a Machine specially constructed for the use of Chemists or Manufacturers of small quantities of Pills. Capacity about 5 lbs. per hour. Can be used on Counter or where little space can be spared. The Piping Press and Machine occupies a space of 2 ft. by 1 ft.

These Machines make one size Pill. By means of extra Plates and Rollers any size of Pills can be made.

Extra Plates and Rollers to fit Machines, £4 5 6.

Price, the two machines, £12.

SMALL LEVER HAND TABLET MACHINE, 60 to 80 PER MINUTE £7 15

Power Tablet Compressing Machines, Coaters, Complete Pill Plants, End Runner Mills for Ointments, Linseed Grinding Mills, Tincture Presses, Emulsifying Machines, Percolators, &c., Mixing and Kneading Machines, Drying Ovens, Hand Pill Machines. Cold Compression Suppository Machines.

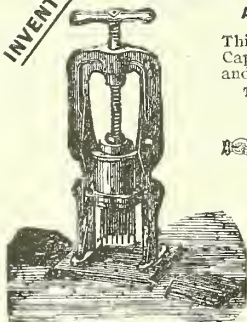
SUPPOSITORY AND PESSARY MOULDS, LIP SALVE MOULDS, Etc. COMPACT POWDER PRESSES.

J. W. PINDAR & CO., LONDON, S.E.4.

Works: ENDWELL ROAD, BROCKLEY, LONDON, S.E.4.

Telegrams: "Pindar, Brockley, S.E."

Telephone: 1065 New Cross.



PIPING PRESS.

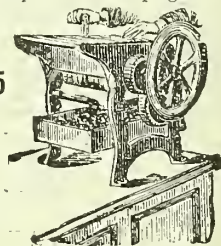
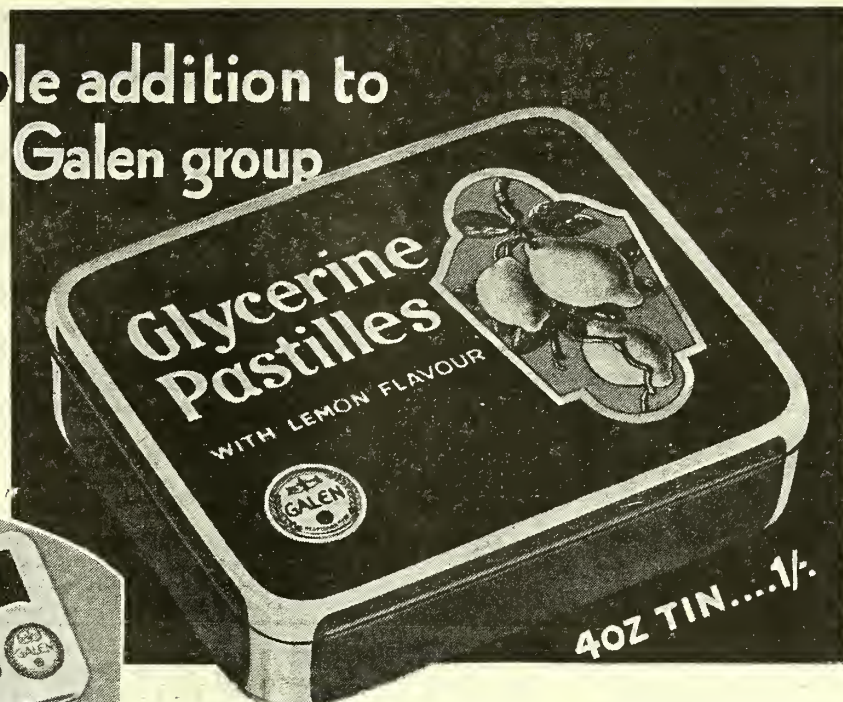


Fig. B. No. 2

ROTARY CUTTING MACHINE

An agreeable addition to  
the popular Galen group



**GLYCERINE PASTILLES with Lemon Flavour :**

The old time favourite soother of tired and sore throats—glycerine and lemon. This new Galen pastille is recommended for the purity of its ingredients, convenient packing and reasonable retail price of 1/- per 4 oz. tin.

**CINNAMON LOZENGES :** An effective lozenge highly medicated with the purest oil of cinnamon. 6d. per tin.

**SISTER'S THROAT PASTILLES :** Enjoys a strong demand. A warming and soothing pastille of the Chlorodyne type. Packed in 4 oz. tins at 1/- each. Also in 6d. tins.

**MITCHAM MINTS :** Are hand-made lozenges with a high content of real Mitcham ol. menth. pip. 6d. per tin.

**GLYCERINE & BLACKCURRANT PASTILLES:**

A blending of real blackcurrant fruit juice and glycerine. The popular fruit throat pastille, welcomed for its agreeable flavour and efficacy. In 4 oz. tins at 1/-



**GALEN**  
**PRODUCTS**

REGD TRADE MARK

Manufactured by  
**THE GALEN PRODUCTS CO., LTD., STOCKPORT**

Sole Selling Agents:  
**THOMPSON & CAPPER WHOLESALE LTD.**  
**Manesty Buildings, College Lane, LIVERPOOL**

# PRECIPITATED CHALK

**LIGHTEST—MEDIUM—DENSE.**  
And All Other Grades To Suit Every Purpose.  
**CHEMICALS FOR ALL INDUSTRIES.**

Phone : Mansion House 7300. Tel. Add. : "Levermore, Phone, London."  
**A. LEVERMORE & CO. LTD.** ABC Codes,  
110 CANNON STREET, LONDON, E.C.4. 5th & 6th Editions.

# PAM sanitary PADS

PAM Compressed, Standard, Soluble. Obtainable from your Wholesaler. Get Bonus Parcel Now.  
**PAM Manufacturing Co., Ltd., 10 Kingly Street, Regent Street, London, W.1**

# PURE ORANGE WINE

## A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.) Prepared in strict accordance with the Formula of the British Pharmacopoeia. (Wholesale only.)  
Samples from Head Office, Thomas Street, DUBLIN, or London Office, 74 Great Tower Street LONDON, E.C.3

# GUMS

**TRAGACANTH  
and ARABIC**

As Imported or Finely Powdered

**WHITE SHELLAC**

**FREDK. FINK & CO., 10 & 11 Mincing Lane, London, E.C.3**  
Telephone : ROYAL 5094.

# "VITAMIN TESTED YEAST"

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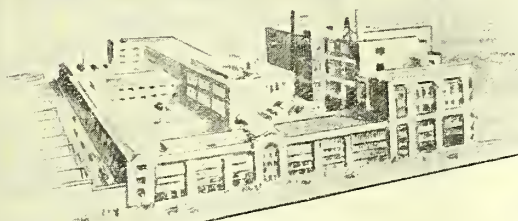
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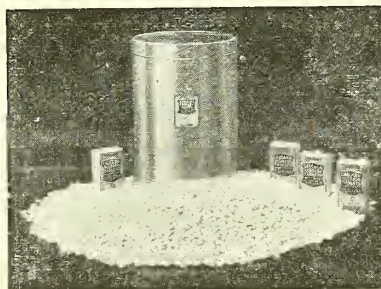
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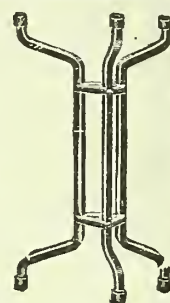
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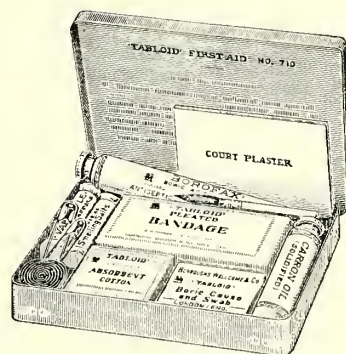
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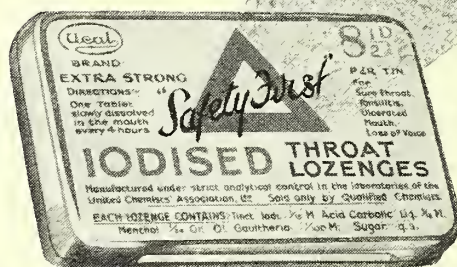
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A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

*The official organ of The Pharmaceutical Society of Ireland,  
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## News of the Week

### Key Industry Duty—Exemption Order

The Board of Trade have issued a notice advising that the Treasury have made an Order under Section 10 (5) of the Finance Act, 1926, continuing the exemption from liability to duty of the following articles till December 31, 1933:—

Acid adipinic; acid isobutyl allyl barbituric; acid oxalic; acid propionic; amidopyrin (pyramidon; dimethylamido-antipyrine); ammonium perchlorate; barbitone (veronal; malonal; malourea; acid diethyl barbituric; diethylmalonylurea; hypnogen; deba); bromural (dormigene); butyl methyl adipate; calcium gluconate (calcium glyconate); celium oxide; chinoline (quinoline); chinosol; cocaine, crude; dial (acid diallyl barbituric); dicyandiamide; didial (ethyl morphine diallyl barbiturate); dimethyl sulphate; diphenyl; diphenyl oxide; dysprosium oxide; elbon (cinnamoyl para oxyphenyl urea); erbium oxide; ethyl abietate; ethylene bromide; eukodal; europium oxide; furfural; gadolinium oxide; germanium oxide; glycol ethers; guaiaacol carbonate (duotal); holmium oxide; integrators (planimeter type); R. lead acetate; lead tetraethyl; lipiodin; lutecium oxide; mercury vapour rectifiers having mercury cathodes; metaldehyde; methyl cyclohexanol methyl adipate; methyl sulphonal (diethylsulphone-methylethylmethane; trional); methylene chloride; neodymium oxide; nickel hydroxide; oxymethyl paraoxyphenyl benzylamine methyl sulphate; papaverine; phenazone (antipyrine); phenyl dimethylpyrazolone; analgesin; anodynine; dimethyl oxychinizin; phenetidine, para-; phloroglucine; photogravure screens (both rulings on one plate) exceeding 40 inches in length; phytin; piperazine (diethylene-diamine; dispermin); planimeters; R. potassium chlorate; potassium ethylxanthogenate (potassium xanthogenate); potassium guaiaacol sulphate (thiocol); R. potassium hydroxide (R. potassium caustic; R. potassium hydrate); R. potassium permanganate; praseodymium oxide; pyramidon-veronal; quinine ethyl-carbonate; radium compounds; salol (phenyl salicylate); samarium oxide; scandium compounds; sodium ethyl methyl butyl barbiturate; strontium carbonate; strontium nitrate; styracol (guaiaacol cinnamate); sulphonal; synthalin; terbium oxide;

thulium oxide; urea (carbamide); vanadium-silica compounds specially prepared for use as catalysts for sulphuric acid manufacture; ytterbium oxide; yttrium oxide.

It will be noted that phenacentin, hydroquinone and resorcin are not re-exempted; these articles will therefore become liable to duty upon importation on and from January 1, 1933.

### General Medical Council

At the November session of the General Medical Council (C. & D., December 3, p. 667) it was ordered that the names of the following be erased from the Medical Register:—Thomas Coffey, L.R.C.P.Irel., L.R.C.S.Irel., 40 Hetherington Road, London, S.W.2 (convictions for obtaining money and goods by false pretences); Alexander Duguid, M.B., Ch.B., 136 Beeston Road, Leeds (convictions for drunkenness and dangerous driving); Henry Blanchard Walters, M.R.C.S., L.R.C.P., The Lawn, Chudleigh, Devon (respondent in a divorce case in which a decree was made absolute, the co-respondent being a patient); Harold Burt-White, M.D., F.R.C.S., 114 Harley Street, W.1 (improper association with a patient who is a married woman, and assault on a police officer).

### Historic Swansea Pharmacy

A new shop front has recently been installed at the premises of J. T. Davies (Chemists), Ltd., Temple Street, Swansea (see p. 701). This business was started as far back as 1793, and is therefore one of the oldest chemists' shops in the country. It was founded in Neath by T. Dawe. From there it was moved to Castle Bailey Street, Swansea, where it remained for many years before it was transferred to its present position—the site of Swansea's first police station. The establishment has many historic possessions. An old prescription-book is dated from 1824. The arsenic sale

book dates from the introduction of the Arsenic Act of 1851, and copper plates and seals used by the founder of the firm are among other interesting relics. The fittings and fixtures inside the shop are of old Spanish mahogany, with mahogany chairs to match. The shop rounds, considered to be among the finest sets in the country, number well over 500. The progressive policy which has characterised the conduct of the business from its inception has resulted in the replacement of the old shop front by one more suited to the needs of the present generation. The plinths, pilasters, and fascia of the new front are of polished ebony black granite, which completely frames the sashes and door of bronze metal. The window enclosure is of polished mahogany below the transome, with lead lights in delicately tinted cathedral glass above. Over the stall-board of oak parquet with walnut border rise three

### Miscellaneous

**POISON-LICENCE APPLICATION.**—Mr. T. H. Vicary, corn merchant, South Molton, has applied to the Devon County Council for a licence to sell agricultural and horticultural poisons.

**WINDOW-DRESSING AWARD.**—Poole & Son, chemists, Newcastle-under-Lyne, gained the second prize in the class for "Things to Use" window-dressing competition held in connection with the recent local shopping week.

**INQUEST.**—An inquiry was held by the East Cheshire coroner, recently, concerning the death of Mr. J. T. Griffin, retired chemist, Heaton Norris, who died on November 23. Evidence showed that Mr. Griffin had suffered from rheumatism and that he had been depressed. The cause of death was corrosive poisoning and bronchial pneumonia. A verdict of "Suicide while of unsound mind" was recorded.

**IN THE COURTS.**—At Penge, on December 6, Davy's Drug Stores, Ltd., chemists, High Street, were fined £1, with £3 3s. costs, for having sold face powder after closing time. The defence was inadventure.—At Newmarket, recently, John Eyet, grocer, Isleham, was summoned for having sold seidlitz powders deficient by 28.36 per cent. in tartaric acid. He had no warranty. The case was dismissed on payment of 4s. costs.

**SPORTING EVENT.**—A football match was played at Nottingham on November 24, in the semi-final for the Meal challenge cup between the Departments of Pharmacy of Leicester College of Technology and University College, Nottingham. Nottingham won the toss and scored three goals in the first half, these being the only goals scored. The game was fast and sporty, and was played throughout in the best spirit. In the evening the Leicester players were entertained to dinner by their opponents.

**SOCIETY OF APOTHECARIES OF LONDON.**—The Society of Apothecaries of London held a dinner, on December 6, to commemorate the tercentenary of the hall, which had been in the ownership of the Society since 1632. The Master (Mr. Cecil Wall), in responding to the toast of "The Society," said it was on December 11, 1632, that the Society met in that hall for the first time. It was a "search day," and their guests were the censors of the College of Physicians, who had accompanied the Master and Wardens on a search through the City for "naughty wares." Having concluded their perambulations, they heard a sermon and then dined.

### Irish Notes

#### Brevities

Pharmacists in the Free State are looking forward to a brisk business during the Christmas season, and already attractive and seasonable window displays are much in evidence. A good run on moderate priced gifts in perfumery, toilet sets and similar lines is anticipated.

Mr. A. Maher, Ph.C., has opened a branch at the Bull Ring, Drogheda.

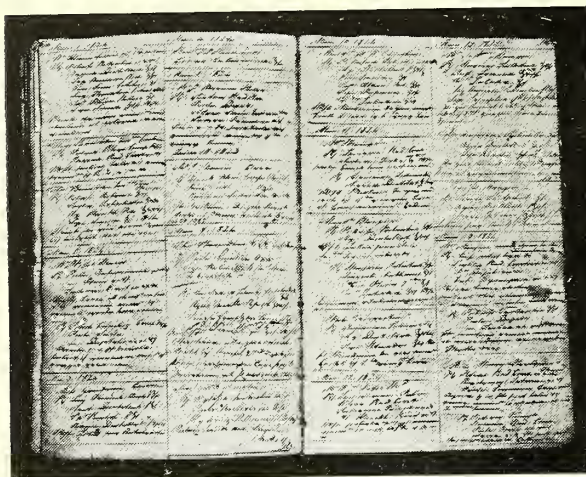
Mr. J. Gilmore, Ph.C., is opening a pharmacy at 259 Albert Bridge Road, Belfast.

Dr. Herbert D. Heazley, Ph.C., has been appointed as medical officer of Urban No. 16 Dispensary District, Belfast, subject to the sanction of the Ministry of Home Affairs.

Mr. W. E. Wilson, Ph.C., 31 North Street, Belfast, has decided to



Mr. J. J. Roche, M.P.S.I.,  
Captain of the Irish Chemists'  
Golfing Society



**PRESCRIPTION-BOOK OF J. T. DAVIES (CHEMISTS), LTD., SWANSEA.**  
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tiers of adjustable plate-glass shelves. The glazing above the transome and to the shop door is carried out in acid embossed plate-glass of original design, that on the shop door embodying the monogram of the company, a device which is repeated in the terrazzo paving to the entrance and in the bronze grille above. The fascia sign in gilded script lettering is illuminated at night by a green neon tube, while two neon signs hang in the windows.

#### Visit to Works

Students and friends of the Welsh College of Pharmacy paid a visit to the Cardiff Gas Works recently. The processes of gas manufacture and the production of by-products were explained by members of the analytical staff. The students also visited the brewery of S. A. Brain & Co. The two companies were heartily thanked for their hospitality.

#### Liverpool

Mr. David Bowlas, representative of Meggeson & Co., Ltd., was taken ill recently during his Scottish journey. On returning to Liverpool he underwent an operation at a nursing home, where he is reported to be progressing favourably.

The customer remembers, in many cases, better than the chemist. Entering a pharmacy in the centre of Liverpool the other day, a customer remarked that it was twenty-five years since he had been there. On the previous occasion it was "the morning after the night before," and he was asked to put out his tongue. "I will remember," he continued, "that you said only one word when you saw it." "What was that?" "Deplorable!" The chemist had entirely forgotten the incident.

retire from business. Mr. Wilson is one of the best-known men in the drug trade in Northern Ireland. He served his apprenticeship in Armagh, and prior to setting up for himself in North Street was manager for many years of the retail drug department of J. & J. Haslett, Ltd. He was one of the first members of the Council of the Pharmaceutical Society of Northern Ireland, and has for many years been vice-president of the Chemists' and Druggists' Society of Ireland. He is also a past-president of the Ulster Retail Drug Trade Association. Mr. Wilson has the good wishes of the trade in his retirement.

An appeal to the Northern Ireland Government to save Ulster girls from "slimming" was voiced by Colonel Sinclair during the consideration of the Dangerous Drugs Bill in the Senate, states the "Irish Times." Colonel Sinclair instanced the use of thyroid gland, which, he stated, was of great potency, and if used for a long time was capable of harmful effect.

## Scottish Notes

### Brevities

Mr. James Jack, Ph.C., Arbroath, has been elected a Fellow of the Society of Antiquaries.

At Glasgow Sheriff Court, recently, Thomas Watson was sentenced to six months' imprisonment for embezzling the sum of £352 while employed as cashier in the Glasgow branch of Kodak, Ltd.

## Coming Events

### Monday, December 12

*South-West London Chemists' Association and Branch of the Pharmaceutical Society*, Stanley's Restaurant, 235 Lavender Hill, London, S.W.11, at 8.30 p.m. Lantern lecture on "London's History and Romance."

### Tuesday, December 13

*Birmingham Pharmaceutical Association, Science Section*, Imperial Hotel, at 8.30 p.m. Miss Kathleen Chapman, B.Pharm., on "Organotherapeutic Products in Modern Pharmacy."

*Pharmaceutical Society of Great Britain*, 17 Bloomsbury Square, London, W.C.1, at 8.30 p.m. Evening meeting and presentation of Harrison medal. Sir Henry Dale, F.R.S., M.D. (director of the National Institute for Medical Research), on "Therapeutic Problems of the Future" (Harrison memorial lecture).

### Wednesday, December 14

*Birmingham Pharmaceutical Association*, Botanical Gardens, Edgbaston, from 8 p.m. to 1 a.m. Annual dance. Tickets 3s. 6d. each.

*Manchester Pharmaceutical Association, Junior Branch*, Victoria Hotel, from 7.30 p.m. to 11 p.m. An old-fashioned Christmas party.

*Pharmaceutical Society of Great Britain, North British Branch*, 36 York Place, Edinburgh, at 8 p.m. Evening meeting. Mr. H. N. Linstead (secretary of the Pharmaceutical Society) on "Things Pharmaceutical in America" (lantern lecture).

# Topical Reflections

By Xrayser

### The British Pharmacopœia

it is good to learn, will continue to be produced by a Pharmacopœia Commission (C. & D., December 3, p. 667). A new Selection Committee is being set up for the purpose of nominating the next Commission, and it may probably be assumed that the work of revision will in future be continuous. It will be remembered that Mr. Herbert Skinner, in his address as chairman of the British Pharmaceutical Conference, insisted that there ought to be no break in the continuity of research required for future revision of the Pharmacopœia and the Codex, and there are indications that such a policy will henceforth prevail, so far at least as the Pharmacopœia is concerned. This is very much to the good, because it seems to me obvious that, if a new Pharmacopœia is to be produced every ten years, serious difficulty would be encountered were the work of research and revision not started until a year or two before the date at which it was proposed to arrange for publication. With research operations going steadily on, and the work of revision by a Pharmacopœia Commission regularly proceeding, it should be found possible to complete the next new Pharmacopœia much more expeditiously and, let me add, to publish it freer from error than formerly. I note that a list of corrigenda to the 1932 issue has been prepared and is shortly to be available. Let us hope that this list will include recognition of all the curious and doubtful points to which attention has been directed in the pages of the C. & D.; otherwise it will necessarily be incomplete.

### Retention of Clause 4 (4)

is now assured so long as the present Minister of Health remains in that office (p. 666), so no difficulty remains in the way of acceptance of the chemists' terms of service offered for the period beginning on January 1, 1933. It is noteworthy that, before arriving at a decision on the subject of retention of the

clause in dispute, the Minister took into consideration views that had been communicated to him by important representative bodies, and it cannot be doubted that such representations have counted for much in helping him to decide in favour of retaining the clause. What may occur when a different Government happens to be in power, and other political views affect the situation, remains to be seen. But there should always be the hope that, by continuing to render the most efficient and satisfactory service to insured persons and to the medical profession, we shall have so effectually established our position that we can rely upon the principle of fixed equalised payments being maintained permanently.

### Little Scope in Scotland

for qualified chemists! This remarkable statement is attributed to an official of the Dundee Technical College in one of your news paragraphs last week (p. 663). What exactly, one wonders, did he mean by little scope—the extent of the business, or the size of the turnover? Judging from his further statement, to the effect that the average chemist's business in Scotland is small and conducted personally by the proprietor, the intention was probably to convey the opinion that carrying on the business of a chemist and druggist north of the Tweed is not accompanied by vast commercial transactions and the accumulation of big money. But I should be prepared to argue on quite different lines, and contend that there is living proof of the wide scope there is for qualified chemists in Scotland, a country which provides so large a proportion of the human material in British pharmacy and that of a high standard of excellence. It is true that many of the pharmacies in Scotland are small, and it is much to the credit of their proprietors that they conduct them personally. Pharmacy in Scotland is to a large extent more truly pharmacy than elsewhere in Great Britain, and loose statements respecting its scope should not be without protest.

## Imperial and Foreign News

We have received a copy of a full-page advertisement which was inserted in the local weekly newspapers by the chemists of Southern Rhodesia. The object of the announcement was to place before the public particulars of the services rendered by chemists; the advertisement was followed by a distribution of the *C. & D.* pamphlet, "The Business of a Chemist and Druggist."

**PHARMACEUTICAL TRADE OF DOMINICAN REPUBLIC.**—The Dominican Republic is an important consumer of drugs, medicines and druggists' sundries, the imports for 1929 being valued at \$443,427, of which quantity probably around 40 per cent. is consumed in the Puerto Plata district. Imports from United States accounted for \$250,000, and those from France \$96,000, while the rest was secured from various countries. Many local druggists sell drugs and medicines of their own manufacture.

**OPIUM CONTROL IN BURMA.**—The Government of Burma have decided to take steps to check the illicit sale of opium. The Opium Commission of the League of Nations had made three special recommendations in regard to Burma: (1) The system of open registers; (2) the reduction in the retail price of government-sold opium; (3) and the system of government-owned smoking establishments as in Siam. As regards the open registers system, the Government have accepted it. On the second point the Government already sell opium at a lesser price than the illicit opium. The owning of smoking establishments is not favoured by the Government.

**BUSINESS IN NYASALAND.**—A Nyasaland correspondent (29/9) sends us the following information on conditions in the Protectorate:—"Business conditions here are very different from those offering in Rhodesia or the Union. To commence with, we have a population of less than 2,000 Europeans all told, including women and children. Of these approximately 250 are civil servants. There are no general practitioners, all medical men being attached either to the Government or to a mission, each runs his own dispensary. In consequence our business becomes more that of a general store. The three chief settlements of Europeans are at Blantyre, Limbe and Zomba, the latter being the seat of Government. All our goods are shipped up to Beira, then up the Trans-Zambesi Railway to the Zambesi, where they are off-loaded and man-handled across the river in barges, again loaded up on a train and brought to Blantyre. A bridge, the longest in the world, is now being built across the Zambesi. On completion there will be through transit trucks from Beira to Blantyre, thereby saving the rough handling at the river and also the exposure to the terrific heat. My *C. & D.* comes out to me, and I have been a constant reader of it for forty years."

## New Zealand News

**KAURI GUM CONTROL BOARD.**—The Government has decided upon the abolition of the Kauri Gum Control Board, which has been in existence for about seven years. The Board was established under power given by the Kauri Gum Control Act, 1925, and included two representatives elected by the producers of kauri gum. The Act was passed as a result of pressure brought by producers to have the industry brought under control.

**FATAL ERROR IN HOSPITAL.**—A verdict that Mrs. Grace Douglas Newport, aged 29, who died in Napier Hospital recently, met her death as the result of the administration prior to an operation of an overdose of paraldehyde, inadvertently administered, was returned by the jury at the inquest. Evidence was given to the effect that the sister in charge of the medical ward had prepared a dose of nine ounces of the drug instead of the prescribed nine drams.

**NORTHERN PHARMACEUTICAL ASSOCIATION.**—The seventeenth annual report (1931) of the Northern Pharmaceutical Association states, *inter alia*, that there has been growing co-operation between the main pharmaceutical divisions throughout New Zealand; that during the year seventy members paid their subscriptions; that the high exchange rate and tariff changes have occasioned a great number of price changes during the year; and this year's pharmacy week, held in May, was marked by a uniform window display throughout the city and suburbs.

## South African News

From "C. & D." Correspondents.

"The Chemist and Druggist" is supplied weekly to members of Chemists' Societies in South Africa.

### Brevities

The first of a series of advertisements to be issued "in the interests of Public Health by the Natal Chemists' and Druggists' Association" appeared in the "Natal Mercury" lately. The attention of the public was called to the importance of purchasing drugs and medicines from one who has been specially trained in recognising and compounding them.

At the Caledon Square Magistrate's Court, Capetown, recently, the senior public prosecutor issued a general warning to chemists to be more careful in the supply of habit-forming drugs. He indicated that arising out of a recent case administrative steps were being taken for tightening up the Drugs Act. Mr. William E. Hodson, manager of Lennon, Ltd., chemists, Adderley Street, was charged with selling heroin to a commercial traveller named Petrie in a container, the label of which did not state correctly the name and quantity of the contents. Mr. Hodson said that his firm were in possession of an order for heroin which was subsequently found to be irregular. This order, he said, was treated as a prescription, and it was laid down that prescriptions need not be labelled with the name of any habit-forming drug. A fine of 2s. 6d. was imposed.

## American Notes

**FAIRCHILD SCHOLARSHIP FOR 1932.**—Julius Messina, of Baltimore, won the Fairchild scholarship for 1932. Mr. Messina matriculated at the School of Pharmacy of the University of Maryland, graduating from this institution last June. This year twenty-nine students competed, representing nineteen schools.

**USE OF MORPHINE, COCAINE AND CODEINE IN PRESCRIPTIONS.**—Interesting statistics (with charts and maps) are given of the amount of morphine, cocaine and codeine distributed to licensed retailers and dispensers in the various States of the U.S.A., during the year 1930, in No. 5 of Vol. 99 of "The Journal of the American Medical Association." Among the general conclusions drawn are that in certain States there is an excessive medicinal use of morphine or of cocaine. As to morphine regarded in association with codeine:—"In twelve States the consumption of both morphine and codeine is below the average; in fifteen States the consumption is about average in both drugs, and in nine States there is an excessive consumption of both drugs. This indicates that in thirty-six States there is a parallelism between the consumption of morphine and that of codeine. In the remaining thirteen States the association is reversed; in seven States the morphine consumption is in excess, while codeine consumption is less than average, and in six other States the codeine consumption is in excess of the average and that of morphine less than average."

# Dangerous Drugs Bill (Northern Ireland)

IN the Northern Ireland House of Commons, on November 30, Mr. GEORGE B. HANNA, Parliamentary Secretary to the Ministry of Home Affairs, moved the second reading of the Dangerous Drugs Bill. He said that the Bill, which was mainly of a technical character, was based on the Imperial Act which received the Royal Assent on March 24, 1932, and was passed to give effect to the Convention held at Geneva in July 1931. The Imperial Act, like all other Imperial Dangerous Drugs Acts which had been passed since the date of the principal Act in 1920, applied to Northern Ireland only in so far as it related to matters with respect to which the Parliament of Northern Ireland had not power to legislate, namely, matters affecting import and export. In order, therefore, that the law in Northern Ireland might continue to conform with that in Great Britain, it was necessary to introduce that measure into Parliament.

Clause 1 of the Bill was to the same effect as Section 1 of the United Kingdom Act [*C. & D.*, 1932, I, 188]. It enacted a revised list of drugs to which Part III of the 1920 Act was to apply, and was achieved by substituting a new subsection for Section 8 (1) of the Act of 1920. Two special preparations, commonly known as codeine and dionin, were excluded from this provision in order to be dealt with by subsection 3 of Clause 2 of the present Bill.

Subsections (1) and (2) of Clause 2 dealt with new derivatives of opium and the coca leaf. The method was by prohibition of such derivatives, followed by a power to lift the ban if they are proved to be scientifically or medically valuable. Subsection (1) followed the corresponding United Kingdom enactment, except that under the proviso the Governor of Northern Ireland, instead of making an Order of substantive effect, merely declared that his Majesty had made such an Order, and thereupon the subsection would cease to apply. Subsection (2) enabled the Governor to make the necessary Orders in Council, where his Majesty had done so upon the result of communications received from the League of Nations; and subsection (3), as already stated, followed the United Kingdom Act, enabling codeine and dionin, the drugs excepted from the amended Section 8 of the 1920 Act, to be brought into Part III thereof.

As to Clause 3 of the Bill, the United Kingdom Act of 1923 contained two provisions creating offences in Great Britain which depended for their definition upon the state of law existing in countries outside Great Britain whose Governments are enforcing the various International Conventions for the suppression of traffic in "dangerous" drugs [*C. & D.*, 1923, I, 764]. An Act similar to the United Kingdom Act of 1923 was passed by the Northern Ireland Parliament in 1924. The Northern Ireland Act, however, did not reproduce the provisions as to offences against corresponding laws, because the question of the constitutional power to do so seemed to require a fuller consideration than was at that time feasible. That question had now been fully discussed with the Home Office, London, and that office and the various legal advisers concerned were in agreement that provisions similar to the United Kingdom enactments of 1923 should find a place in the present Bill. Such provisions were accordingly embodied in this clause. [The provisions are (1) search under a warrant for documents (substantially identical in its terms with Section 10 (1) (a) of the Dangerous Drugs Act, 1920); (2) the insertion of a provision after Section 13 (1) (c) of the same Act penalising anyone who in Northern Ireland aids, abets, counsels or procures the commission outside Northern Ireland of an offence punishable in that place.]

Clause 4 enabled Orders or Declarations made by the Governor in Council to be varied or revoked by subsequent Orders or Declarations, and followed Section 4 of the United Kingdom Act of 1932, which gives similar power to his Majesty in Council.

Clause 5 followed the previous Northern Ireland precedents, namely, Section 3 of the Dangerous Drugs and Poisons (Amendment) Act (N.I.), 1924, and Section 6 of the Dangerous Drugs Act (N.I.), 1925. Subsection (2) is in effect a saving for the provisions of the United Kingdom Code, which apply to "excepted" matters in Northern Ireland. Subsection (3) would enable uniformity of administration to be achieved as between Great Britain and Northern Ireland.

## THE BILL DISCUSSED

Mr. HENDERSON said he saw permission had to be obtained from the Imperial authorities to introduce that Bill, but in view of the importance of the Bill he supposed it was absolutely essential in the interests of the people of Northern Ireland.

Mr. MURPHY said that he saw in page 1, Clause 1 (1), of the Bill, in paragraph (c), line 15, and also in line 19 of the same page, the word "esters" was used, and again on the next page, in line 18, the word appeared. Might he suggest that there was some misprint? The word "ester," as far as he knew, was entirely unknown to the English language. It occurred to him that the word should read "ethers." Might he also, for his own information, and quite seriously, because he wanted to know and had not been able to ascertain, ask the hon. and learned gentleman what was the meaning of the words in lines 21 and 22, "pentavalent nitrogen morphine derivatives"?

Mr. MCNEILL said that being under a somewhat similar impression to Mr. Murphy he had made inquiries from a chemist in Belfast, and discovered that "esters" was a word which was known to all pharmaceutical chemists, and that it was not a mistake for "ethers."

Major McCORMICK asked if the Minister was prepared to issue a supplementary statement interpreting the terms used in that measure. Throughout that Bill there was no mention whatever of the local dangerous drug known as "Red Biddy."

Mr. DEPUTY SPEAKER: I would point out to the hon. and gallant gentleman that there is no reference in the Bill to "Red Biddy," and a debate on that subject would, therefore, not be in order.

Major McCORMICK: I feel that "Red Biddy" is almost as potent as opium, if it is not as deadly in its effects. In spite of its defects, I have much pleasure in supporting the Bill.

Mr. HANNA, in reply, said: I do not propose to take up the time of the House by telling it the meaning of the names used in this Bill. This Bill is clearly intended to assimilate the law in this country with the law in relation to "dangerous" drugs in England and over a very much wider area, and to prevent the dissemination of "dangerous" drugs among our people. I had the very same feeling about "esters" as my hon. and learned friend, the member for the City of Londonderry. "Esters," I subsequently ascertained, are compounds formed from an alcohol and acid by removal of water. As to the word on the second page of the Bill, "pentavalent nitrogen," I am instructed that pentavalent nitrogen is nitrogen which will combine with five atoms of hydrogen.

Mr. NIXON: Just in order to give some hon. members on both sides of the House an opportunity of speaking of something that they know, namely, "Red Biddy," I beg to move the rejection of this Bill.

Mr. DEPUTY SPEAKER: Even that, I must point out, will not necessarily bring the hon. gentleman within the Rules of Procedure.

Mr. NIXON: The Parliamentary Secretary told us all he knows about the Bill, and now we know nothing about it.

Mr. DEPUTY SPEAKER: As there is no seconder for the amendment it falls to the ground.

The Bill was read a second time. It subsequently passed through the Committee stage and received its third reading without amendment.

## Legal Reports

**Injunctions Granted.**—In the Chancery Division of the High Court, London, on December 6, two motions for judgment in default of defence, in which the plaintiffs were Capsuloids, Ltd., and Scott & Bowne, Ltd., and the defendant was Mr. William Thomas Davison, trading as The British Pharmacies, Victoria Arcade, Southend, came before Mr. Justice Eve. Mr. Kenneth Swan, for the plaintiffs, said that in the first case the motion was for injunction restraining infringement of the registered trade mark "Cicfa" and restraining the issue and distribution of certain leaflets. In the second case, the trade mark was "Scott's Emulsion," and the relief he was asking for was similar. In the leaflets in question the registered trade mark was used to catch the public eye. The goods when sold did not bear the trade mark, but a prescription number. His lordship granted injunctions in both cases.—In Mr. Justice Farwell's court, on the same day, two motions for judgment in default of defence, in which the plaintiffs were the Carter Medicine Co. and Bismag, Ltd., and the defendant was Mr. William Thomas Davison, trading as The British Pharmacies, Victoria Arcade, Southend, were heard. Mr. Kenneth Swan, for the plaintiff companies, said that in the first case the action was to restrain infringement of a trade mark belonging to his clients and known as "Carter's Little Liver Pills." In the second case the action was to restrain infringement of a trade mark consisting of the word "Bisurated." In both cases his lordship granted an injunction, directing delivery up of literature and an inquiry as to damages.

**Motion for Committal.**—In the Chancery Division of the High Court, London, on December 2, Mr. Justice Farwell had before him a motion by Phosferine (Ashton & Parsons), Ltd., to commit William Thomas Davison, trading as The British Pharmacies, for alleged disobedience of an order made by Mr. Justice Clauson on July 26 restraining him from infringing the plaintiffs' registered trade mark by utilising the word "Phosferine" for the sale of a medicinal preparation not of their manufacture. Mr. Kenneth Swan, for the plaintiffs, said that on August 31 they caused a visit to be made to one of defendant's shops, when a photograph was taken of a poster in the window. The defendant's notice was pointedly called to the fact that there was not a satisfactory compliance with the order. On November 7 the wife of a Gillingham chemist went to a local cinema, and obtaining a programme observed an advertisement by The British Pharmacies of "Phosferine." She called the attention of the plaintiffs to the advertisement, and thereupon they immediately gave notice of this motion to commit. The advertisement used the registered trade mark of the plaintiffs in such a way as to constitute a grave infringement of their rights. The plaintiffs had since made further inquiries, and found that a similar advertisement had appeared in the programme of a cinema at Leigh-on-Sea. Mr. Justice Farwell: There is no evidence before me that the defendant could have got the advertisements altered. Mr. Davison, who appeared in person, said he had done everything in his power to obey the order. Before the order was made he got into touch with the advertisement agent and gave him an alteration of copy. He had brought the man with him to give evidence. Mr. Justice Farwell: If you want to give evidence it must be on affidavit. Mr. Davison said he wanted to file evidence. Mr. Justice Farwell: Very well, the motion will stand over for a week to enable you to do so.

**Judgment and Adjudication Annulled.**—A motion to set aside, on the ground of *mala fides* and breach of an undertaking, a judgment marked against Mr. S. J. Hamilton, Ph.C., Magherafelt, was heard by Mr. Justice Brown in the King's Bench Division, Belfast, on November 29. The judgment, which had been obtained by Mr. John McGarvey, solicitor, Cookstown, was for the sum of £377 17s. 3d. Mr. E. S. Murphy, K.C., M.P., in making the application, said that as a

result of the judgment being marked his client was made a bankrupt two days later, and had since been lodged in jail as an absconding debtor. His client had a good answer to the claim, and he denied that this sum had been expended on his behalf by the plaintiff on his instructions. The ultimate question in the action would be whether Mr. McGarvey had bought land on behalf of the defendant, and had paid this sum of money by way of deposit. Mr. Lowry contended that while it was to be regretted that Mr. McGarvey had not informed Mr. Hastings that he intended to mark judgment, the circumstances were such as to justify his action. His client learned that the defendant had in his possession a ticket to go abroad and had all his goods in portable form. Mr. Justice Brown said that he thought that Mr. McGarvey had made a great mistake in failing to notify Mr. Hastings of his intention to have judgment marked in view of their agreement, which was a distinct undertaking between professional gentlemen. The judgment must be set aside.—In the Bankruptcy Division of the High Court, Belfast, on December 2, Mr. Justice Brown annulled the adjudication of bankruptcy in the case of Mr. S. J. Hamilton, Ph.C., Magherafelt. Mr. E. S. Murphy, K.C., M.P., in making the application, read the affidavit of Mr. Hamilton, which stated that prior to the institution of any proceedings against him, he sold certain War Loan, but he had not disposed of or made any attempt to dispose of any other of his investments and securities and moneys which were still in his possession, amounting to over £2,000. In addition, he had considerable property and investments in South Africa. It was absolutely untrue to suggest that he had made or attempted to make any arrangements with a view to leaving the country. His lordship, in annulling the adjudication, directed that the costs of the official assignee and the costs of the bankruptcy be paid by the petitioning creditor, Mr. John McGarvey, solicitor, Cookstown. The judge further directed that the property be revested in Mr. Hamilton.

## New Companies and Company News

**P.C. means Private Company and R.O. Registered Office.**

**KREX PRODUCTS, LTD. (P.C.).**—Capital £500. Objects: To carry on the business of chemists, druggists, oil and colourmen, soap makers, etc. R.O.: 31 Felday Road, S.E.13.

**SMITHS (EARBY), LTD. (P.C.).**—Capital £500. Objects: To carry on the business of chemists, druggists, oil and colourmen, etc. R.O.: 29 Victoria Road, Earby, via Colne.

**EDWARD ASPDEN, LTD. (P.C.).**—Capital £100. Objects: To acquire the business of chemists carried on by Ida W. Aspden and another at 159 Bowes Road, Palmers Green, London, N.13.

**DOUGLAS COLLINS & Co., LTD. (P.C.).**—Capital £100. Objects: To carry on the business of manufacturers of and dealers in creams, perfumes, soaps, shampoos, and generally all toilet preparations of any kind, patent medicines, drugs, etc.

**SCOTT, SIMPSON & Co., LTD. (P.C.).**—Capital £2,000. Objects: To acquire the business of a mineral water manufacturer carried on by E. Howard, trading as "Scott, Simpson & Co." at Crystal Mineral Water Works, Drighlington.

**O. P. 17 PRODUCTS, LTD. (P.C.).**—Capital £100. Objects: To carry on the business formerly carried on by W. H. Watts at 19 Sotheby Road, Highbury, N.5, to develop and turn to account the trade mark "O.P. 17," and to carry on the business of chemists, druggists, etc.

## Bankruptcy Reports

**Re Sidney Burden**, "Alberta," New Road, Aston Clinton, Bucks, lately trading as The Old Brewery Pharmacy, Green End Street, Aston Clinton, Bucks, chemist and druggist. The public examination was continued recently at the County Hall, Aylesbury, when the statement of affairs showed liabilities of £564 os. 5d. and assets of £171 7s. 9d., leaving a deficiency of £392 12s. 8d. The Official Receiver stated that he had no further questions to ask and the examination was adjourned for the signing of the notes.

**Re Granville Morgan Evans**, 76 Victoria Road, Cleveleys, near Blackpool, Lancs, chemist and druggist.—The public examination was held recently at the Court House, Blackpool. A statement of affairs was submitted which disclosed gross liabilities of £918 15s. 1d., of which £770 15s. 5d. was expected to rank for dividend, and there was an estimated deficiency of £693 19s. 7d. Debtor attributed his failure to "insufficient turnover and profit to meet expenses." The examination was adjourned for closing.

## Gazette

### Bankruptcy Acts

#### ADJUDICATION

CUMMINS, D., 3 Cavendish Road and 29B Bedford Road, and lately at 122 Guildford Road, Birkdale, Lancaster, chemist and druggist.

## Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1932, p. 339.

(From "The Trade Marks Journal," November 30, 1932.)

"YXIN" and "CREPOPLAST"; for antiseptic medicines (3). By Beiersdorf, Ltd., Bessemer Road, Welwyn Garden City, Herts. 528,254.

"HOLLOWAY'S PILLS" on medallion design; for pills (3). By Holloway's Pills, Ltd., King George's Avenue, Watford. 532,437. (Associated.)

"KAYLENEMA"; for a preparation for use as a rectal enema in radiological examination (3). By Kaylene, Ltd., Waterloo Road, London, N.W.2. 535,622. (Associated.)

"ACE BRAND"; for all goods (3). By Ayrton Saunders & Co., Ltd., 34 Hanover Street, Liverpool. 535,672.

"BROOKLAX"; for laxative medicines (3). By Westminster Laboratories, Ltd., 4-12 Palmer Street, London, S.W.1. 535,683.

"APSIKOL"; for medicinal chemicals (3). By H. C. H. Freestone, 74 High Street, Rochester. 536,015.

"SELO"; for photographic apparatus (8). By Ilford, Ltd., Ilford, Essex. 535,062. (Associated.)

"CLARKSON'S FILMETIO" ("CLARKSON'S" disclaimed); for cosmetics (48). By W. B. Clarkson, 41-43 Wardour Street, London, W.1. 535,318. (Associated.)

"LA TOJA"; for perfumery, etc. (48). By Sociedad Anonima La Toja, Calle de la Republica, Pontevedra, Spain. 528,014. (Associated.)

"KNIGHT'S CASTLE TOILET SOAP" on design incorporating mounted knight ("Castle" will be varied); for toilet soap (48). By John Knight, Ltd., Silvertown, London, E.16. 535,018. (Associated.)

"VEROSAP"; for perfumery, etc. (48). By Osborne, Garrett & Co., Ltd., 51-54 Frith Street, Soho, London, W.1. 535,743. (Associated.)

According to "The Trade Marks Journal," November 30, 1932, the specification for "KAYLENE," in Class 48, No. 531,059, by Kaylene, Ltd., has been amended to "Dentifrices, toilet powder, paste and cream, and perfumed soap, but not including pomatum dressing for the hair and not including any goods of a like kind to pomatum dressing for the hair."

## Stock Exchange Prices

£1 Shares unless otherwise stated	Dec. 31, 1931	Oct. 31, 1932	Nov. 30, 1932
Allon & Hanburys, 7% Prefd. Ord.	s. d. 20 6	s. d. 23 0	s. d. 23 0
Amalg. Dental Co., 8% Prefd. Ord.	16 9	23 9	23 0
" " Deferred 5s.	2 6	3 10½	3 9
Ayrton, Saunders & Co., 7½% Pref.	12 6	12 6	12 6
Beechams Pills, Deferred 1s. shares	1 10½	2 7½	2 6
Benger's Food, Ord.	28 6	40 6	40 0
Benzol & By Products cum. part Pref.	—	0 9	1 0
Berger (Lewis) & Sons Ord.	—	20 0	22 3
Boake (A.), Roberts & Co., 5% Pref.	15 0	16 3	16 3
Blundell Spence & Co.	—	5 9	5 9
Boots Pure Drug Ord.	116 3	140 0	142 6
Boots Pure Drug, 7% "A" Prefd. Ord.	23 9	27 6	28 0
Boots Cash Chemists (S.), 6% "A" Pref.	21 9	26 0	26 9
Borax Consol., Dfd. Ord.	7 6	12 3	12 9
Bovril, 6% Pref.	21 3	25 3	25 0
" " Ord. " " " "	21 3	26 3	27 0
" " Dfd. " " " "	33 6	27 9	26 6
British Cyanides, Ord., 2s. shares	0 10½	1 7½	2 3
British Drug Houses, The, Ord.	15 0	13 3	13 0
British Glues & Chemicals, 4s. Ord.	—	2 7½	2 9
British Oil and Cake Mills, Prefd. Ord.	26 0	36 6	38 0
British Oxygen, Ord.	13 9	23 0	24 0
British Photo. Indus., 6% Cum. Pref.	8 9	6 3	5 9
Burt Boulton & Haywood Ord.	—	21 3	21 0
Bush (W. J.), & Co., 5% Pref. £5	58 9	60 0	77 6
Callard, Stewart & Watt, Ord.	12 6	5 7½	5 0
Chance & Hunt 4% 1st Mort. Deb. £100	—	£78	£78
Cooper McDougall & Robertson Ord.	—	17 6	17 6
Crosfield (Joseph) & Sons, 6½% Pref.	20 3	26 6	25 0
Drug Incorporated (no par value).	£78	£47	£52
Dubarry Perfumery, Ord. 1s.	5 0	1 7½	1 9
" " 7½% Pref. " "	18 9	20 4½	19 6
Eastman Kodak Com. (no nom. value)	£118	£78	£81
Evans Sons Lescher & Webb, Ord.	—	—	—
6s. 8d. shares	2 3	2 0	2 0
" " 6% cum. part. Pref.	3 3	2 9	2 9
Field (J. C. & J.), Ord.	12 6	21 3	21 3
Galloway (P. H.), Ord. 2s.	2 6	2 9	2 9
" " 7½% Cum. Pref.	19 0	23 0	23 0
Gossage (William), 6½% Pref.	20 6	26 6	26 3
Grouit & Co., Ord.	17 6	18 9	17 6
Hodders, Ord. 1s.	0 2	0 3	0 2
Ilford, Ltd., Ord.	24 0	25 6	26 3
" " 6% Pref.	18 9	23 3	23 0
Imperial Chemical, 7% Pref.	19 6	27 3	26 6
" " Ord.	14 3	22 9	24 0
" " Dfd. 10s.	4 3	6 1½	6 4½
Intern. Sponge Importers, 6% Pref.	6 3	6 3	8 9
Kent (G. B.) & Sons, 5½% Pref.	6 3	6 0	6 10½
Knight (John), 25% Prefd. Ord.	60 0	80 0	81 3
Laporte (B.) & Co., Ltd., Ord.	18 0	21 6	21 6
Lever Bros., Ltd., 7% Pref.	20 9	27 9	27 9
" " 8% Pref.	20 6	27 6	27 6
" " 20% Prefd. Ord. £1	41 3	56 3	56 6
Lewis & Burrows, Ord.	22 6	22 6	22 6
" " 6% Pref.	16 6	19 0	19 0
Liebig's Ext. of Meat, Ord. £5	£8	£8½	£8½
Mellin's Food. 6% Pref.	1 9	1 3	1 3
Nathan (Joseph) & Co., 7% Pref.	13 9	15 6	16 3
" " 8% Prefd. Ord.	5 6	5 0	5 0
Pears (A. & F.) 5% Deb. £100	—	£105	£104
Phosferine (Ashton & Parsons) 8% cum. part. Ord.	7 6	14 6	15 0
Reckitt & Sons Ord.	—	90 3	92 6
Salt Union Ord.	26 3	34 3	34 3
Sangers, Ord. 5s.	7 3	11 3	10 9
" " Sanitas, The, Co., 9% Pref.	21 3	27 6	27 6
Sanitas Trust, 10% part. Pref.	20 6	24 3	23 3
Smith (Stephen) & Co. Ord. 5s.	6 0	9 6	9 10½
Southall Bros. & Barclay, Ord.	107 6	140 0	145 0
" " 5% Pref.	20 6	23 3	23 0
Spratt's Patent, Ord.	46 3	60 0	61 3
Stevenson & Howell, 6½% Cum. Pref.	17 0	20 0	20 0
Taylor's Cash Chemists (Lon.) 1s. Dfd.	0 7	0 7½	0 6
Taylor's (Cash Chemists) Trust, 7½% Cum. Pref. Ord.	9 9	11 0	10 3
" " 1s. Dfd.	0 7½	0 10½	0 7½
United Glass Bottle Man., 6% Mt. Deb. Stk. £100	£100	£107	£107
Veno Drug Co. 8% Pref.	12 6	17 6	18 9
Virel Ltd., Ord.	30 6	28 9	30 0
" " 7% Pref.	20 3	25 3	25 6
White (A. J.), Ltd., Ord. 10s.	11 3	13 0	13 9
White (Timothy), 7½% Prefd. Ord.	16 9	22 3	22 3
" " 1s. Dfd. Ord.	1 3	2 0	2 0
Wright Layman & Umney (1932)	—	—	—
7% cum. Pref.	—	24 6	24 6
Yorkshire Indigo & Col. Dyers 5s. Ord.	—	0 10½	0 10½

# British Pharmacopœia 1932

## Lectures at Brighton

THE last of the series of weekly lectures on "The British Pharmacopœia, 1932," organised by the Brighton, Hove and District Branch of the Pharmaceutical Society, was delivered on December 2 at the Brighton Technical College. The lecturers in the series were Mr. H. B. Mackie, B.Pharm., Mr. E. R. Parken, B.Sc., Miss M. E. Stevens, B.Pharm. (all of the staff of the pharmaceutical department at the College), and Dr. L. R. Janes (assistant pathologist, Royal Sussex County Hospital).

The opening lecture of the series, the subject of which was "Isotonic Solutions and Injections," was given by Mr. Mackie, who introduced his subject by a reference to osmosis. In addition to an experiment demonstrating osmotic pressure by Pfeffer's method, there was a series of microscopical slides showing the effect of solutions of various strengths on living plant cells and a hæmatocrite by means of which the action of solutions on blood corpuscles was determined. Mr. Mackie stressed the importance of the use of isotonic solutions for injections and eye lotions. In conclusion he demonstrated methods of preparing and testing ampoules.

The same lecturer introduced the subject of "Emulsions and Colloidal Solutions" at the second lecture. He described how surface tension, viscosity and adsorption had a bearing on emulsification, and referred to the different theories of emulsions. He explained that the continuous phase of an emulsion was the liquid which had the lower surface tension, and demonstrated the effect of various substances in lowering interfacial tension. By an algebraic formula it was shown that the more closely the specific gravity of the dispersed and continuous phases approximated the more stable the emulsion.

Mr. E. R. Parken took as his subject for the third lecture, "The Newer Chemical Substances." He said that although the title of the lecture covered a wide field he proposed to restrict his remarks to the newer anaesthetics and hypnotics, and stressed the importance of purity in such substances. He explained the chemical reaction which gave rise to a number of impurities for the presence of which it was necessary to test. Referring to the paraffin series he said that iso-butane was more potent than normal butane on account of the presence of the side chain. The olefinic series was the source of several general anaesthetics, for example, ethylene. Although the production of anaesthesia by this gas was slow, the patient regained consciousness within a comparatively short time after administration had been discontinued. The presence of the carboxyl group in a compound de-activated its narcotic powers. After indicating the respective actions of alcoholic, aldehydic and ketonic groups he discussed the uses of a number of halogenated compounds, such as trichlorethane. Reference was made to the urea derivatives, and, in conclusion, the lecturer mentioned the use of cocaine substitutes.

"Recent Materia Medica" was the subject of Miss Stevens's address for the fourth lecture. After indicating the scope of materia medica, the lecturer said that the function of practical pharmacognosy was to ensure that a drug of reasonable quality was available for use in pharmacy. The influence of cultivation and methods of drying were illustrated by reference to pharmacopœial drugs. Methods of investigation of vegetable drugs were demonstrated, including colour tests and a short account of the present state of our knowledge of the chemistry of some of the more important drugs.

The fifth and sixth lectures were upon "Vaccines and Serums." Dr. L. R. Janes, the lecturer, after indicating by means of a diagram the differences between vaccines and serums in their relation to active and passive acquired immunity, and describing the preparation of smallpox vaccine, gave a detailed description of the production of diphtheria toxin, its injection into the horse previously immunised against tetanus; the

testing of antitoxin from the blood withdrawn from the animal, and its ultimate preparation. The use of the Schick test was described, and brief reference was made to tetanus antitoxin, antidysentery serum, and old and new tuberculin.

The final lecture, entitled "Sterilisation" was given by Mr. H. B. Mackie, who reminded his listeners that sterilisation was the complete destruction of micro-organisms, including spores. These latter were generally more resistant to the methods adopted for producing sterility. By means of standard apparatus he demonstrated the different processes of sterilisation, and indicated various inexpensive pieces of apparatus which might be used at the dispensing counter. He said he hoped that the time was not far distant when the Society would require every pharmacy to be adequately equipped for the carrying out of these processes.

At the conclusion Mr. F. J. Flatman (president of the Branch) voiced the appreciation of the members, and said that owing to the large number who had subscribed to the course there was a balance of £11 11s. remaining, after the expenses had been paid, which would be sent as a contribution to the Society's Benevolent Fund. Mr. K. J. Padwick (vice-president) seconded the motion, which was enthusiastically received.

## National Pharmaceutical Union

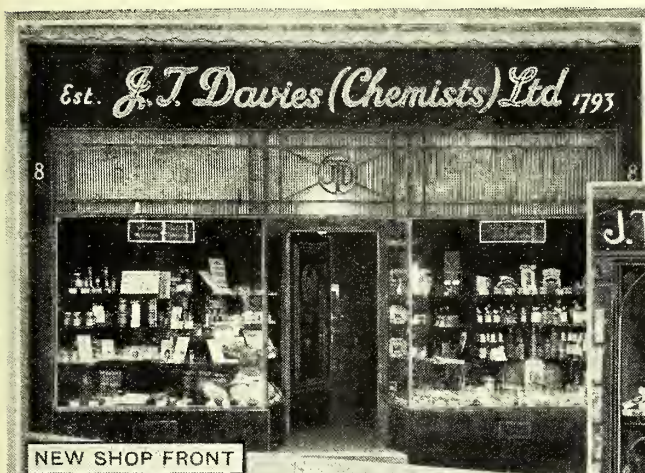
### Branch Meetings

**Devon.**—The annual meeting of the Devon Branch was held on November 30. Reports of the secretary and treasurer were adopted, and the retiring chairman (Mr. A. C. Milton) was thanked. The following officers were elected:—*Chairman*, Mr. W. A. Burnage; *Vice-Chairman*, Mr. J. W. Lake; *Treasurer*, Mr. W. R. B. Arnold; *Auditor*, Mr. John Harris; *Secretary*, Mr. F. Southerden; *Committee*, Messrs. F. E. Battershill, W. C. Bennett, G. A. Clarke, M. T. Foster, A. T. Hayward, W. E. Hollows, A. J. Merrifield, A. C. Milton, I. R. Phillips and P. F. Rowsell.

**Leicester.**—A meeting of the Leicester and Leicestershire Branch was held on November 29, Mr. C. A. Forryan in the chair. A lecture on *Sterilisation and the B.P., 1932* was given by Mr. A. R. G. Chamings, B.Pharm. (Department of Pharmacy, Leicester College of Technology), who, after outlining the history of sterilisation and indicating the need for such treatment, gave some striking facts about the incidence, ubiquity and size of the various micro-organisms. Sterilisation, he said, was a comparatively new subject. In sterilisation the B.P. must have a wide margin of safety, and so must of necessity err on the side of stringency. It must be remembered that, as in the case of all other B.P. processes and definitions, a strict compliance with its requirements regarding sterilisation was essential. The preparations of the B.P. requiring to be sterilised were then considered, and various pieces of apparatus (which were displayed) discussed as regards their relative value. The position of the chemist with an occasional solution for sterilisation was reviewed, and simple and inexpensive types of apparatus suggested. In conclusion Mr. Chamings exhorted those present to seek to enhance their own prestige and that of pharmacy by undertaking as much of this work as they possibly could.

"A PUBLIC DANGER."—Addressing a meeting in London on November 30, Sir Amherst Selby Bigge spoke of "a most important person in a Government office who solemnly asked me, 'What are genetics?' If a man asks 'What are Keats?'" he said, "that is merely a tragedy of personal ignorance; but a man who in that position asks 'What are genetics?' is a public danger."

# HISTORIC SWANSEA PHARMACY



NEW SHOP FRONT



OLD SHOP FRONT

NEW FRONT TAKEN AT NIGHT  
SHOWING NEON SIGN ON FASCIA

VIEW OF INTERIOR

RIGHT HAND CORNER OF SHOP,  
SHOWING OLD LAMBETH  
DRUG JARS ETC.

## Festivities

### Newcastle Function

A WHIST DRIVE AND DANCE was held under the auspices of the Newcastle and Northumberland Branch of the Pharmaceutical Society on November 30, when about 100 members and friends participated. In the unavoidable absence of the chairman (Mr. Rufus Hepworth) through illness, his duties devolved upon the vice-chairman (Mr. A. Patten), Mrs. Patten presenting handsome prizes to those successful at whist and spot prizes to the dancers. The happy company reluctantly dispersed at 1 a.m.

### Guild of Public Pharmacists

AN enjoyable evening was spent on November 23, when a whist drive was held for members and friends of the Guild of Public Pharmacists at a Holborn restaurant. The prizes were presented by the president (Mr. E. A. Andrews) as follows:—*Ladies*, Mrs. Deacon, Mrs. Green, Mrs. Peckover. *Gentlemen*, Mr. Sachs, Mr. Green, Mr. Hearne. The mystery prize was won by Mrs. Phillips. Mr. A. H. Jenkin carried out the duties of M.C. Supper was served during the interval, and with the absence of speechmaking an informal atmosphere contributed to the pleasant evening.

### Presentation at Kilmarnock

A PLEASANT and harmonious evening was spent in the Wheatsheaf Hotel, Kilmarnock, on November 23, when a complimentary dinner was given by the County of Ayr Pharmaceutical Committee and a few friends to Mr. John D. McLeod, chemist and druggist (Kilwinning), on the occasion of his leaving for South Africa. During the evening Mr. McLeod was presented with a wallet of notes from the Ayrshire chemists as a token of their appreciation of his services to pharmacy. He was a member of the Pharmaceutical Committee, and for the last four years acted as secretary; he also represented the Committee on the General Council of Panel Chemists and was divisional secretary of the Pharmaceutical Society for the northern division of the counties of Ayr and Bute.

### Liverpool Smoking Concert

THE annual smoking concert in aid of the Pharmaceutical Society's Benevolent Fund, promoted by the committee of the Liverpool Chemists' Association, was held at the Adelphi Hotel on November 30. Mr. H. Humphreys Jones presided and was supported by Mr. L. Moreton Parry (ex-president), Mr. George L. Clubb (vice-president), Mr. S. Hughes (treasurer) and Mr. John Rae (secretary). An enjoyable programme was contributed to by Miss Nancy Thomas (contralto), Mr. R. F. Jones (tenor), Mr. W. H. Thomas (baritone), Mr. Ralph Collis (comedian), Mr. J. W. St. Clair (conjurer), and a selected party from the Cymric Vocal Union. During an interval, Mr. H. N. Linstead (secretary of the Society) delivered an address, at the conclusion of which he made the customary appeal for liberal contributions to the Benevolent Fund.

### Perthshire Function

THE annual dinner and whist drive of the Perthshire Pharmacists' Association was held recently. Mr. J. C. Smail presided, and the party included Dr. Tait (North British Branch of the Pharmaceutical Society) and representatives from all over the county. The following were the whist prize-winners:—*Ladies*, (1) Mrs. D. W. Foster; (2) Mrs. J. S. Stewart; (consolation) Mrs. J. B. MacDonald. *Gentlemen*, (1) Mr. John Brydon; (2) Mr. A. R. Stewart; (consolation) Mrs. J. Marshall Farquhar (playing as gentleman). The spot prize was won by Mr. J. C. Smail. During the evening Mrs. Walker (Dunkeld), Mr. Michie (Milnathort), Mr. Lowe (Kinross) and Dr. Tait (Edinburgh) delighted the company with recitations and songs. Miss Jean Todd and Mr. Angus Morrison charm-

ingly rendered several solos and duets; Mr. Clarence Ingham acting as accompanist.

### London College of Pharmacy Reunion

THE annual reunion dinner and dance of the London College of Pharmacy was held at the Waldorf Hotel, Aldwych, London, W.C.2, on November 30. Mr. Irvine G. Rankin (principal) presided over about 150 present students, "Old Cyanides" and friends, who were delighted at the "Boom-a-lac-as" rendered in true student spirit. Mr. Myrrdin Rees proposed the toast of "London College," which was suitably responded to by the principal. Mr. G. H. F. Flory, welcoming the old students, proposed "The Old Cyanides," and gave Mr. Angus Robertson an opportunity for one of his characteristic replies. Mr. L. R. M. Comley (captain of the football team) responded to the toast of "The Football Club," and informed his listeners that, for the first time, London College had a full list of fixtures for its second team. Mr. A. L. Cole (captain of the hockey team) responded to the toast of "The Hockey Club." Mr. R. J. Atzema (secretary of the Social Committee) made an excellent toastmaster. The third annual general meeting of "The Old Cyanides" (London College of Pharmacy, Old Students' Association) was then held with Mr. C. W. Gosling (president) in the chair. It was decided to send a letter of appreciation to Mr. H. Wootton (founder of London College of Pharmacy) in recognition of his practical interest in inter-pharmacy football as shown by his donation of the fifth cup—"The Old Cyanide Cup"—which was on view and admired by all. The evening concluded with dancing.

## Prescription Problem

THE prescription reproduced in facsimile in our issue of November 19 (p. 623) came to us from a subscriber in one of the Dominions. It presented no great difficulty except in the directions, but it included one misspelling. The correct transcription is as follows:—

Sod[.] Sal[.]	gr ij
Bisth[.] Carb[.]	gr iv
Tr[.] Bellad[.]	℥ij
Syr[.] Zi[n]gib[.]	℥viiss
Syr[.] Rub[.] Iodei[=Idaei]	℥x
Aq[.]	[ad] 3j
[Capiat] 3j 3 h [ourly] e[x] aq[.]	
[Mitte] 3 iv	

Contrary to our usual custom, the "R" and the prescriber's initials were included in the facsimile, on the well-known examination principle, it may be assumed, of adding something irrelevant when setting a question. Neither carried any marks.

The ingredients were correctly read by more than three-fourths of the competitors. More than half, however, failed to indicate that they recognised "Iodei" as a misspelling; and some of the corrections did not result in accuracy—for example, "idœi," "idœa" and "idæus." We have accepted "idaei" in view of the preference of some authorities for the abolition of diphthongs from Latin orthography. The first ingredient was wrongly given on a few cards as "menthol" or "pot. iod."; and the syrup of raspberry was variously misread as "syr. rub. Codex," "syr. rheados," "liq. rub. iodei," "syr. ferri iodidi," or "syr. rubidii iodidi" (a preparation unknown to us). Some cards had "raspberry vinegar."

The directions were correctly deciphered in the majority of cases. The following were the principal deviations:—

3j 3ss ex aq	3j t d s ex aq
3j 3d s c aq	3j 3ss a c ex aq. s.
3j 3ij ex aq	3j ex aq 3j

In addition, we received "One teaspoonful in  $\frac{1}{2}$  teaspoon of water," and (most ingenious of all, by an anonymous commentator) "3j 3ss e a h. s. (every alternate hour—presumably alternately each hour)." Many transcribers wrote "[Mitte]" before "3iv";

but everyone failed to recognise that the word before the directions should properly be "Capiat." Medical men are supposed to have some acquaintance, however slight, with Latin; and "Signetur" or "Signa" should refer only to directions in English. The work of discriminating between several good attempts has been unusually arduous. The result is that the three best cards (equal) are those of:—

Mr. J. A. Ball, 67 Northdale Road, Wavertree, Liverpool  
Mr. Alfred Reynolds, 17 Lucas Road, Penge, London, S.E.20

Mr. D. Spivey, 16 Greenhill Road, Harrow, to each of whom a prize of 7s. 6d. is awarded. The next three in (equal) order of merit are from:—

Mr. W. T. Helyer, 25 New Cut, London, S.E.1  
Miss E. M. Holloway, 52 Monnow Street, Monmouth  
Mr. W. H. Hubbert, 2 and 3 The Broadway, Woodhall Spa.

Each receives a prize of 5s. Our final selection, in a third order of merit, is:—

Mr. H. B. Burr, c/o The Strood Pharmacy, Ltd., 78 High Street, Strood

Mr. J. Chapman, 7 Cambridge Gardens, Folkestone  
Mr. W. J. W. Crawford, c/o I. W. Nicholl, Ltd., 25 High Street, Belfast

Mr. G. B. Daniel, 272 High Road, Wood Green, London, N.22

Miss D. M. James, Chippenham House, Monmouth  
Mr. R. Kennedy, 51 Drumpellier Street, Coatbridge  
Miss Mary Lawrie, 3138 East Muirhall Street, Coatbridge

Miss M. Miller, 211 Murchison Road, Leyton, London, E.10

Miss V. Westley, 20 Eatington Road, Whipps Cross, London, E.10,

and to each of these a prize of 2s. 6d. is awarded. The fact that a few competitors were not sure as to the names of all the ingredients is fresh evidence of the unexpected difficulties to be found in apparently simple prescriptions.

## Association Meetings

**Belfast.**—Under the auspices of the Chemists' and Druggists' Society of Ireland, a lecture on *The British Pharmacopœia, 1932*, was delivered by Mr. C. W. Young, Ph.C., on December 1. Mr. Fred Storey (president) was in the chair, and there was a large attendance. In introducing the lecturer, Mr. Storey said it was now almost four years since Mr. Young came to the Belfast Municipal College of Technology. He had gained their confidence and esteem. Mr. Young commenced with a few remarks on the London Pharmacopœia of 1618. He then emphasised the solid endeavour of the compilers of the 1932 B.P. in obtaining accurate specifications and implicit standardisation. The advisability of the drastic simplification in drugs and preparations was questioned on the grounds of supply, but it was thought the power given to issue local supplementary lists by law in various parts of the Empire might overcome this difficulty. The 1914 B.P. items which were altered were dealt with, and the terms under which industrial spirit could be used were fully explained. Mr. Young surveyed recent works on antiseptics, and explained various biological terms, international standards, and the Therapeutic Substances Act. Pharmacists, concluded the lecturer, had to realise that the biological inclusions and the new scientific data had made the B.P. more a wholesaler's companion than a guide for the dispensing counter. Mr. Storey said they had all enjoyed the lecture. In his younger days, when manufacturing syr. ferri iodidi, he had used hypophosphorous acid, and it was interesting to see them coming back to it again. He also referred to extracts, tinctures and the storage of syrups. Mr. Young, the chairman added, had consented to give them a further talk on the B.P. early in March. Mr. R. I. Edwards (president of the Pharmaceutical Society of Northern Ireland), in proposing a vote of thanks to the lecturer, said it had been a most enjoyable and interesting lecture. Mr. R. Hastings, in seconding, said he was glad he had travelled all the way from Newcastle to hear the lecture. Mr. A. E. A. Davis (president of the U.R.D.T.A.), in supporting the vote, said Mr. Young had enlightened them about many points. The vote was passed by acclamation. Mr. Young briefly replied.

**Edinburgh.**—The opening meeting of the fifty-fifth session of the Edinburgh Chemists', Assistants' and Apprentices' Association was held on November 30, Mr. J. J. Blackie (president) in the chair. Mr. Eric Knott (secretary) submitted the report on the prize scheme examinations. Mr. John Gilmour, Ph.C., presented the prizes to the successful candidates, congratulating them on their success. On the motion of Mr. W. A. Beattie, a vote of thanks was awarded to Mr. Gilmour; and on the motion of Mr. David Harley, a vote of thanks was awarded to the donors of prizes. The chairman said they were fortunate in having secured for their opening

meeting Lieut.-Col. W. Glen Liston, M.D., whom he had pleasure in calling upon to give the opening address on *Vaccines: Their Preparation and Uses*. Dr. Liston gave an interesting history of vaccination and of the preparation and uses of vaccines. The lecture was illustrated by a series of typical cultures and by microscopical slides of various organisms. On the motion of Dr. Tait, seconded by Mr. Stout, a hearty vote of thanks was awarded to Dr. Liston.

**Manchester.**—A joint meeting of the Manchester Pharmaceutical Association and Manchester, Salford and District Branch of the Pharmaceutical Society was held on December 1, Mr. H. Steinman in the chair; there was a good attendance. The chairman introduced Dr. A. W. Downie (Lecturer in Bacteriology, Manchester University), who delivered an address on *Serums and Vaccines in the New B.P.* Dr. Downie described types of pathogenic bacteria, and gave an instructive historical survey of the development and treatment of infectious diseases. He indicated also the methods by which active immunisation can be obtained, and described the processes of preparing serums and vaccines. Referring to the new B.P. products, Dr. Downie emphasised the necessity for adequate storage facilities. In the course of a reply to a question regarding the keeping properties of vaccine lymph, Dr. Downie said this product would keep much longer in the dark and at a low temperature. In answer to a question by Mr. Franklin on the use of antitoxins in serious accidents, he said that many medical men, in cases of wounds where infection was suspected, injected the antitoxin of tetanus or gas-gangrene, or both, as a protection against infection. Further replies dealt with the introduction of calf lymph by Jenner, and the importance of milk supplies from tuberculin-tested herds. A cordial vote of thanks was proposed by Mr. J. H. Franklin, seconded by Mr. G. E. Cronin.

**Public Pharmacists.**—A meeting of the Liverpool Branch of the Guild of Public Pharmacists was held on November 28, Mr. R. H. Henriksen in the chair. The speaker was Mr. John Rae, F.C.S., who read a paper on *The British Pharmacopœia, 1932*. Mr. Rae dealt first with the appendices, and said he was pleased to see the inclusion of details regarding the determination of pH values and instructions for sterilisation. He did not approve of the formula for ext. ergotæ liq., which was materially altered. To any alteration in liq. arsenicalis he would have preferred to have retained the old alkaline solution and deleted liq. arsen. hydrochlor. He could not understand the reduction in the proportion of strychnine in syr. ferri phosph. c. quina et strychnina. An interesting discussion followed, among those taking part being Miss Bentley, Miss Edis, Messrs. Humphreys and Alec Rae.

## Trade Notes

**SCOTT'S EMULSION.**—Scott & Bowne, Ltd., 10 Stonecutter Street, London, E.C.4, are offering some highly attractive display material for their well-known proprietary.

**LOCAL PUBLICITY.**—Chemists who are desirous of sending out sales letters should write for details of the help afforded in this direction by Roneo, Ltd., Holborn, London, E.C.1.

**A. L. SIMPKIN & CO., LTD.,** chemists' confectioners, Carfield Works, Sheffield, 4, announce that, having doubled their plant, they will soon be in a position to promise prompt attention to repeat orders.

**BONUS ON ASPIRIN TABLETS.**—Howards & Sons, Ltd., Ilford, recently placed on the market a novel package for their aspirin tablets in the form of a round dome-top Beatl box. One dozen of these packed in an attractive gold covered outer were offered for the counter, free, in addition to the special bonus which was then available. Messrs. Howards have now decided to send one dozen of these novel boxes with each order for a specified quantity of aspirin tablets purchased on window display terms.



**EVENING IN PARIS HAIR CREAM.**—A. Bourjois et Cie, Ltd., 4 Water Lane, Blackfriars, London, E.C.4, have sent us a sample of their latest addition to the popular Evening in Paris series of toilet products, and it is shown in the accompanying illustration. This hair cream is packed in the characteristic style of blue and silver. The perfume is delicate and the preparation is of the usual high standard associated with the company's goods.

**ALLEN & HANBURY'S, LTD.,** Bethnal Green, London, E.2, have recently placed on the market, as an addition to

to their Plough brand series of products, worm capsules suitable for dogs (10 lb. and over) and puppies (for animals under 10 lb.). The capsules are packed in tins of 6, 18 and 50, and are stated to be an effective remedy against tape-, thread- and round-worms.

**AGRICULTURAL RESEARCH.**—The Royal Agricultural Society of England, 16 Bedford Square, London, W.C.1, have sent us a copy of "The Farmer's Guide to Agricultural Research in 1931" (1s. 3d. post free). Hitherto, these annual volumes have been issued under the title of "Agricultural Research," but to indicate their purpose more clearly this has been amplified. In other respects the character of the publication is unchanged. Mr. James Mackintosh contributes, as usual, a practical article on "Dairy Farming and Dairy Work," in which he details the latest information on dairy herd management, the inheritance of milking qualities, the causes of variations in the composition of milk, etc. In the section on the "Prevention and Treatment of Diseases in Animals" Dr. F. C. Minett deals with sources of infection in foot-and-mouth disease, the immunisation of pigs against swine fever, and the troublesome intestinal disorders of calves. Dr. Crowther deals comprehensively with the feeding of live stock, and the sections on diet and health and on foods and feeding practice are of particular interest. A new section in the volume, dealing with pests and parasites, is a contribution which will appeal to agricultural chemists. The volume concludes with Sir John Russell's admirable summary of the latest research in soils and manures.

**IODISED THROAT TABLETS.**—Thomas Guest & Co., Ltd., Carruthers Street, Ancoats, Manchester, have sent us specimens of the display material they are issuing in connection with their Sure Shield iodised throat tablets, and some of the showcards are illustrated below. That on the right is an autographed photograph of a well-



known Australian tenor, with his testimonial regarding the tablets. There is available a similar card "featuring" Florence Smithson, of musical comedy fame. The centre showcard is a striking example of the printer's art, and the remaining one is a mirror. Publicity material of this nature, whether shown on the counter or in the window, should prove a valuable sales-aid at this time of the year.

**TEA.**—The Paramount Tea Co., 43 Great Tower Street, London, E.C.3, are advertising in this issue a special offer of choice blended teas.

**THE R. H. HEWARD CO.,** surgical appliance manufacturers, Crown Road Works, Twickenham, include in their advertisement in this issue a diagram showing the measurements necessary when ordering elastic hosiery.

**INTERESTING INFORMATION** with regard to the new packing of the well-known Plunket teat, manufactured by J. G. Ingram & Son, Ltd., The London India Rubber Works, Hackney Wick, London, E.9, will be found in our advertisement pages.

## Business Changes

**J. & D. RUSSELL,** chemists, have opened a branch at 36 Hamilton Street, Saltcoats.

**YARDLEY & Co.,** chemists, Becontree, have opened a new branch at High Street, Hornchurch.

**MR. H. R. BROWN,** chemist and druggist, is taking over the business of Mr. W. H. Green, Ph.C., Caroline Square, Skipton.

**MR. ERNEST WILSON,** chemist and druggist, has transferred his business from 444 Burnage Lane, Didsbury, to 4 King Street West, Stockport.

**MR. W. WHARTON,** chemist and druggist, has purchased the business of Mr. J. G. Cobb, The Bridge Pharmacy, 278 Haydons Road, Wimbledon, London, S.W.

**MR. H. E. POCKOCK,** chemist and druggist, has acquired the business of Mr. F. Leo Tew, chemist and druggist, Penn Fields Pharmacy, Penn Fields, Wolverhampton.

**MR. S. H. WILLIS,** chemist and druggist, Broadway, Cardiff, has purchased the business of Mr. S. W. Hague, chemist and druggist, 54 Ordell Street, Splott, who is devoting his time to the business he opened several years ago at Rumney, Monmouthshire.

## Marriages

COOKE—REYNOLDS.—At Chesterfield Parish Church, on December 5, Joseph Cooke, chemist and druggist, to Madeline Hannah Reynolds.

MACGREGOR—KERR.—At St. Stephen's Church, Edinburgh, on November 26, Duncan Macgregor, chemist and druggist, to Evelyn Mary Kerr.

## Deaths

ALEXANDER.—At his residence, 94 Mornington Drive, Edinburgh, on November 27, suddenly, Mr. Thomas Alexander, chemist and druggist, aged sixty-nine. Mr. Alexander was born near Dollar, and was educated at the Academy there. He passed the Qualifying examination in 1886, and subsequently held the appointment of dispenser to the Edinburgh Royal Infirmary with much acceptance to the managers and medical staff, whose appreciation was given expression to in notable presentations on his retirement in 1926, after thirty-nine years' service, originally as assistant dispenser and as resident registrar. Mr. Alexander wrote the Pharmacopœia of Edinburgh Royal Infirmary, now in its fourth edition. This great hospital is unique by reason of the fact that no medicines are dispensed free in the out-patient departments, prescriptions being given which are dispensed by chemists, often at reduced rates, throughout the areas from which the out-patients come. Mr. Alexander was an accomplished pharmacist, a man of wide culture and of refined tastes, of clear and sound judgment, and of singularly gentle and courteous bearing. His wife predeceased him last July, and his only son died in 1918 on active service in France.

BELL.—At Richmond, Surrey, on November 20, Mr. Matthew Whitelock Bell, chemist and druggist, aged eighty-five.

BONNELL.—At Nottingham, on November 23, Mr. Gerald Edwin Bonnell, chemist and druggist, aged thirty-one.

COOK.—At his residence, 69 Hampton Road, Southport, recently, Mr. Thomas Marsden Cook, chemist and druggist, aged sixty-six. Mr. Cook was born at Hindley and was educated at Wigan Grammar School. He served his apprenticeship to Mr. R. E. Kellett, chemist and druggist, Wigan, and commenced business at Chapel Green, Hindley, in 1900, afterwards removing to Market Street. Mr. Cook retired ten years ago. He leaves a widow. The many floral tributes at the funeral included one from the Wigan and District Chemists' Association.

DULLEY.—Recently, Mr. David Dulley, retired chemist and druggist, Cromer, aged seventy-three. For a long period Mr. Dulley carried on business in Church Street, retiring six years ago. He was prominently associated with the public life of the town, and had been Worshipful Master of the Baring Lodge of Freemasons.

GRANTHAM.—At the Cottage Hospital, Skibbereen, Irish Free State, on December 5, after a few days' illness, Mr. Henry G. Grantham, the highly esteemed and valued representative of A. de St. Dalmás & Co., Ltd., Leicester and Dublin. Mr. Grantham's genial personality and business capacity won for him many friends in Ireland and elsewhere. The interment, which was attended by representatives from Dublin, took place at Creagh, co. Cork, on December 7.

GREENSILL.—At his residence, Camden Villa, Bewdley Road, Stourport, on November 20, Mr. William Joseph Greensill, retired chemist and druggist, aged seventy-seven. For many years Mr. Greensill carried on business at the Stourport pharmacy now owned by Mr. Walter C. Roberts, chemist and druggist.

JOHN.—At the Railway Hotel, Cardiff, on November 30, suddenly, Mr. E. T. John, representative in the

Midlands, West of England and Wales, of William Toogood, Ltd., 77 Southwark Street, London, S.E.1, aged fifty-three.

MCLAUGHLIN.—At Glasgow, on November 10, Mr. James McLaughlin, chemist and druggist, aged forty-nine.

MARSHALL.—At Grimsby, on November 28, Mr. Phillipson Marshall, chemist and druggist, aged sixty-two. Mr. Marshall served his apprenticeship to the late Mr. W. Griffin, chemist and druggist, Louth. After qualifying, he had seven years' experience in China, and then travelled in India for three years for Parke, Davis & Co.

MASON.—Recently, Mr. John Mason, sales manager for over forty-three years to John Riley & Sons, Ltd., manufacturing chemists, Hapton, aged seventy.

SPENCE.—At Elgin, on November 30, suddenly, Mr. James Spence, chemist and druggist, aged sixty-three. Mr. Spence was born at Garmouth, and served his apprenticeship to Mr. D. A. Mortimer, Aberdeen. After qualifying he commenced business at Dalry, eventually purchasing a pharmacy in High Street, Elgin, which he carried on for twenty-two years. Last May Mr. Spence disposed of his shop to Boots, Ltd., and set up as an optician in South Street. He was prominent in local musical affairs, and was held in high esteem.

## Personalities

MR. PAUL DOBSON, Ph.C., F.S.M.C., this season's chairman of the Leeds Branch of the Pharmaceutical Society, was born in 1899 at Bramley, near Leeds, and is the youngest chairman the Leeds branch has had. Educated at West Leeds High School, he was apprenticed in 1913 in the drug department of the Leeds Industrial Co-operative Society, Ltd., and is now their pharmacy manager and buyer. During the war he served overseas. His pharmacy training was at Leeds Technical College and the Leeds College of Pharmacy. He passed the Major in 1921. From 1920 to 1923 he was on the teaching staff at the Leeds College of Pharmacy, and thus became well-known to and esteemed by many ex-Service men who received their training there. He has been a member of the Leeds Branch of the Society since its inception, and a member of the branch council since 1922. In 1925 he passed the examination of the Spectacle Makers' Company. Although he makes pharmacy a hobby as well as a profession, he finds time for golf and motoring, and is closely identified with local musical activities as an accomplished violinist, especially in the Leeds Orchestral Society, of which he is deputy conductor. He is very popular with his fellow pharmacists, and on several occasions has given the Branch—and, by special invitation, the students of the Leeds College—lectures on various phases of business, including the principles of salesmanship and window display.




MR. PAUL DOBSON, Ph.C.

MR. H. M. TRANMER, chemist and druggist, Smethwick, has been elected chairman of the local Insurance Committee.

MR. G. S. SAVAGE, chemist and druggist, who was formerly in business in Bradford, is lying dangerously ill at his home in Harrogate.

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### INFORMATION WANTED

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	H/2811. Sulphvita tablets (for medicated bath)
	A/712. Taxi liquid dentifrice

# THE CHEMIST AND DRUGGIST

VOL. CXVII. DECEMBER 10, 1932 NO. 2757

## The Retention of Clause 4 (4)

NAPOLEON once remarked that victory belongs to the most persevering. The decision of the Minister of Health to retain Clause 4 (4) in the chemists' terms of service must be regarded as essentially a victory, not for chemists or the National Pharmaceutical Union, but for the principle of freedom from bribery in connection with a public service. The Clause will enable the present high standard of the N.H.I. dispensing service to be maintained, and will prevent the undesirable developments which would have been inevitable had it not been retained. The Minister of Health is to be congratulated on ultimately deciding to keep his N.H.I. dispensing service clean. This result has not been obtained easily; the Executive of the Union as well as Mr. Mallinson are to be congratulated on the tactful and energetic manner in which they have organised the campaign in favour of the retention of the Clause. At one time it seemed likely that the Clause must go; and it would have gone if the N.P.U. Executive had not been determined to fight so long as there was a chance of persuading the Minister that there was a vital principle involved, and that the best interests of the insured persons coincided with the wishes of the chemists in this matter.

### Help in Several Directions

The N.P.U. Executive apparently sought assistance wherever it was to be obtained, and in particular have reason to be grateful for the help given by the insurance committees, which in so many instances sent resolutions of protest to the Minister, and, in addition, enabled the National Association of Insurance Committees at its annual conference to adopt and send a similar resolution. The British Medical Association's Insurance Acts Committee and Dr. Anderson, the secretary of the B.M.A., rendered valuable assistance by supporting the N.P.U. Executive. We are also informed that there were one or two chemists, prominent in the local political affairs of influential members of the Government, who were able to render very valuable assistance by invoking the aid of their members of Parliament. It is not desirable, for obvious reasons, that the names of those chemists should be given, but their assistance was all the more valuable because it was the only way in which such support could be obtained. It is recognised that ministers will not interfere with one another in the exercise of their official duties, but it is still permissible for a member of Parliament, even though he is a Cabinet minister, to take up a complaint for a constituent and have a chat with a fellow minister about the matter. We understand that the company chemists also brought their influence to bear on this question and supported the N.P.U. Executive.

Many chemists may have forgotten that when the late Labour Government was in power, Clause 4 (4) would have been revoked had not the N.P.U. Executive, after all arguments had failed, conceived the idea of fighting it out in the High Court on the basis of a breach of contract. It was recognised as a rearguard action, intended to gain time. This audacious move succeeded, because the Labour Government fell. While the Court proceedings were being taken, the Executive was taking steps to secure the support of the other political parties when a change of Government occurred. There was no difficulty in this connection because, though the Labour Government did not recognise the sanctity of the contract made with chemists, the other political parties did, and were ready to guarantee continuance to the end of the period. National Health Insurance dispensing has never been made a political matter by or on behalf of the chemists who undertake contracts to supply drugs and appliances; and it was merely the alignment of the three political parties at the time that caused this action to be taken—in the interests, as we have endeavoured to show, of insured persons no less than in the interests of the chemists concerned.

### The Ultimate Difficulty

The difficulty which ultimately faced the Executive on the termination of the present contracts was that of convincing the Minister of Health that the Clause should be retained on its merits in the interests of the Service. Further, they had to meet a natural desire on the part of everybody connected with the N.H.I. administration at the Ministry of Health to eliminate a regulation which had been made into a political matter by the action of the co-operative societies through the Labour Party. The firm attitude of the Pharmaceutical Committee Conference strengthened the hands of the Executive considerably, and must undoubtedly have impressed the Ministry of Health. We are satisfied that the decision of the Minister was wisely made in the interests of insured persons, and justly so far as chemists are concerned. It would have been scandalously unfair to chemists as a body had the co-operative societies, who have only commenced to compete with chemists during the past few years, been allowed to dictate the conditions under which all chemists were to supply N.H.I. medicines. Now, however, Clause 4 (4) is to remain part of the Regulations for the next three years, which means that every chemist on the panel will be in the same position of having to rely solely upon the high standard and efficiency of his service to secure the goodwill of insured persons. This satisfactory ending to the long and sustained struggle for the retention of the Clause has proved what well-organised and concerted opposition can effect. There is no doubt that the fight has been a hard one; but "the harder matched the greater victory," and we feel sure that not only the panel chemists themselves but also every person interested in N.H.I. affairs will pay grateful tribute to the untiring efforts of Mr. Mallinson and the N.P.U. Executive to preserve an uncorrupted N.H.I. service and will congratulate them upon the results they have achieved.

# Pharmaceutical Society of Great Britain

## Council Meeting

A meeting of the Council was held at 16 Bloomsbury Square, London, W.C.1, Mr. F. Gladstone Hines (president) in the chair. All the members were present.

### CONGRATULATIONS TO MR. JACK

The PRESIDENT congratulated Mr. Jack on his election as a Fellow of the Society of Antiquaries of Scotland.

Mr. Jack briefly expressed his appreciation of the president's remarks.

### ELECTIONS AND RESTORATIONS

Six persons were elected members of the Society, but there was no election of student-associates. The registrar reported that one hundred and fifty-eight persons had been registered as apprentices or students.

### INVIGILATORS APPOINTED

The following were appointed invigilators and deputy invigilators of written examinations for the ensuing year:—

*England and Wales.*—Birmingham, E. C. Bennison, T. H. Foden; Brighton, J. Plowright, F. W. Burgess; Bristol, A. L. Taylor, W. Hetherington; Cardiff, E. Poole, E. W. Hill; Leeds, H. Gilleghan, H. N. Armistage; London, C. A. Noble, W. E. Gaze, F. G. Hobart; Manchester, T. Miller (deputy to be appointed by president); Nottingham, E. C. Carr, W. J. Clay; Portsmouth, F. H. Ruoff; Sunderland, W. Nimmo, H. Ward-ropper.

*Scotland.*—Aberdeen, W. F. Hay, M. K. Watt; Dundee, J. R. Milne, J. H. Thomson; Edinburgh, J. Nesbit, D. McEwan; Glasgow, P. M. Duff, H. P. Arthur.

A supplementary resolution, appointing Mr. H. B. Lacey, of London, a member of the Board of Examiners for England and Wales, was approved.

### EDUCATION COMMITTEE

The report of the Education Committee showed that they had considered the question of the special examination for the diploma in biochemical analysis. The Committee stated that the date given in the Regulations for the examination for this Diploma was April, as normally six months' courses would end at that time of the year. Owing to the special circumstances resulting in a course in the Society's School and possibly elsewhere being held from January to July, a special examination would be necessary in July 1933. They recommended that an examination for the diploma to be held in July 1933. The report was adopted.

### BENEVOLENT FUND COMMITTEE

The report of this committee showed that during the month nine applications had been considered, and grants made, ranging from £10 to £30. The following special contributions were acknowledged:—Brighton and Hove Association of Pharmacy, £12 14s. 5d.; Brighton Branch, £11 11s.; Nottingham Branch, £10 10s. and £1 12s. 6d.; National Pharmaceutical Union, £10 10s.; Exeter and District Branch, £10; Reigate, Redhill and District Pharmacists' Association, £8 19s. 6d.; Watford Branch, £7 3s. 4d.; C. W. Higgins, £4 10s.; Dewsbury and District Branch of National Pharmaceutical Union, £3; Leicester Branch, £2 17s. 5d.; Cardiff and District Pharmacists' Association, £2 7s.; Alexander Walker, £1 10s. 7d.; Southampton Branch, 19s. 10d.; J. V. Dobson, Ltd., 18s.; Scarborough Branch, 17s. 3d.;

Chester and District Pharmacists' Association, 13s. 9d.; R. Deck, 12s.; F. G. Holoran, 9s.; South-Western Branch, 15s. Legacy.—Walter Hills, £200. Orphan Fund.—Reigate, Redhill and District Pharmacists' Association, £1 1s.

Mr. BEARDSLEY (chairman of the committee) said they were getting an exceptional number of applications for help from the fund. He was, therefore, all the more pleased to have to acknowledge such a notable list of special contributions.

Mrs. FREKE drew attention to the needs of the orphans under the Council's care. The report was adopted.

### WAR AUXILIARY BENEVOLENT FUND

This committee reported that they had received four applications during the month, and had granted sums ranging from £15 to £26. The report was adopted.

### FINANCE COMMITTEE

The financial statement showed that receipts since the last meeting, including a balance of £30 os. 5d., amounted to £6,052 11s. 4d., comprising the following items:—Subscriptions, £65 7s. 3d.; registration fees, £378; restoration fees, £1 1s.; certificates of qualification, £1 1s.; examination fees, £548 2s.; School of Pharmacy, £20 14s. 2d.; Pharmacological Laboratories, £636 16s. 6d.; penalties and expenses, £119 1s. 6d.; rentals, £105; "Pharmaceutical Journal," advertisements, etc., £1,350 9s. 9d.; "Quarterly Journal," £68 9s. 6d.; "Pharmaceutical Pocket Book," £8 18s. 5d.; Registers, £5 6s. 9d.; examination papers, £12 7s. 2d.; Pharmaceutical Press publications, £36 9s. 9d.; "Forensic Pharmacy," £17 6s. 1d.; B.P. Codex, £81 12s. 6d.; F.S.S.U. contributions, £11 os. 8d.; reimbursement under workmen's compensation policy, £5 6s. 11d.; transfer from deposit account, £2,550. Payments ordered at the last meeting amounted to £6,005 3s. 10d., leaving a balance of £47 7s. 6d. The balances on the other accounts were:—Benevolent Fund (current account), £49 12s. 7d.; Benevolent Fund (donation account), £35 5s. 5d.; War Auxiliary Benevolent Fund, £47 18s. 9d.; Orphan Fund, £17 17s. 10d. Accounts amounting to £5,478 16s. 7d. were passed for payment, and the action of the secretary in making payments amounting to £969 8s. 7d. was approved. The report was adopted.

### LAW COMMITTEE

The report of the Law Committee, presented by Mr. Marns, stated that in England and Wales, since the last report, 576 shops have been visited; of these 419 were chemists' shops. At twenty of the remaining 157 shops visited certain infringements of the Pharmacy Acts were reported. In Scotland, since the last report, 120 chemists' shops have been visited.

This was all the public business.

## Election of Annuitants

A meeting for the election of five annuitants of the Society was held at 17 Bloomsbury Square, London, W.C.1, on December 7. The vice-president (Mr. John Keall), who was in the chair, moved that the following be elected:—Clarke, Thomas E.; Heighington, Thomas G.; Hopkinson, William H.; North, Samuel J.; Sewell, Thomas, A. W. Mr. J. Jack seconded, and the resolution was adopted unanimously.

## Branch Meetings

**Cambridge.**—The annual general meeting of the Cambridge and District Branch was held on December 1. The treasurer reported a credit balance, and the secretary commented on the decreasing number of student-associates. The following officers were elected:—*Chairman*, Mr. F. E. Harris; *Vice-Chairman*, Mr. M. E. Parson; *Treasurer*, Mr. J. B. Simmons; *Secretary*, Mr. W. Heap; *Auditor*, Mr. A. Border; *Committee*, Messrs. P. F. Barker, B. S. Campkin, P. E. Cottis, J. Evans, W. R. A. Howlett, J. M. Palmer, E. S. Peck, J. E. Prain and A. H. Scott. Mr. B. S. Campkin was appointed local secretary for the Proprietary Articles Trade Association. Mr. W. J. Beardsley (a member of the Society's Council) addressed the meeting on *A Few Notes on the B.P., 1932*. Having seen the publication of the last four B.P.s, Mr. Beardsley assured his audience that the latest one had been the least criticised. He added that a future ideal would be a B.P. which was a treatise on drugs, using the Codex for the preparations. Although, said Mr. Beardsley, the more stringent tests would cause increases in price, they would keep out many cheap drugs. He gave a word of warning on the storage of ergot preparations, advising buying in small quantities. An interesting discussion followed. Mr. J. Evans proposed a hearty vote of thanks to the lecturer. The questions of more frequent meetings and the formation of a social section were discussed.

**Exeter.**—The annual meeting of the Exeter and District Branch was held on November 30. The annual report and financial statement were adopted, and the following officers were elected:—*Chairman*, Mr. I. R. Phillips; *Vice-Chairman*, Mr. W. R. B. Arnold; *Treasurer*, Mr. W. W. Pine; *Auditor*, Mr. E. W. Hodge; *Secretary*, Mr. F. Southerden; *Social Secretary*, Mr. A. C. Milton; *Committee*, Messrs. F. E. Battershill, G. A. Clarke, F. Dyson, M. T. Foster, A. T. Hayward, W. E. Hollows, J. W. Lake, P. F. Rowsell, P. F. Trestrail and G. P. Worth. The annual whist drive and dance was fixed for January 25, 1933.

**Leeds.**—At a meeting of the Leeds and District Branch, held on December 2, Dr. C. H. Hampshire (secretary of the Pharmacopœia Commission) delivered an address on *The British Pharmacopœia, 1932*. Mr. Paul Dobson (chairman of the Branch) presided over an attendance of nearly 200, including medical men, students and others. Dr. Hampshire's address covered the subject on similar lines to his paper reported in the *C. & D.*, November 12, p. 586. Opening the discussion, the chairman said the Commission was to be complimented on the compilation of a great work. Mr. A. W. Lupton (principal, Leeds College of Pharmacy) felt there was still need for a good deal of experience in deciding the amount of drug to be taken when using dry extracts from crude drugs. He noticed the new B.P. gave two indicators for the titration of borax, both of which appeared to be more or less identical, and he wondered why both were given. Mr. J. F. Simon said he was glad to know that liq. arsenicalis was still under observation for mould; he wondered how long it would be before some preservative was allowed. He wondered also whether the Commission had embarked on much research in the matter of making chemical foods. Mr. Ellis (Leeds University) said in conjunction with Miss Higginbottom and under Professor Challenger he had lately been engaged in investigations into the matter of moulds in liq. arsenicalis, and they had jointly contributed a paper which they hoped would shortly be published. Mr. Fulham said that while liquid extract of hyoscyamus, B.P., was green in colour, he had obtained some from wholesale houses which was brown. He asked which was the correct colour. The chairman asked whether steps might be taken by the Commission to allow users of future issues of the B.P. to obtain the issue a reasonable time in advance. Dr. Hampshire, replying, agreed with Mr. Lupton as to the necessity of experience in dealing with all the dry extract preparations. With regard to borax estimation indicators, the use of a particular indicator was a matter of preference. In answer to Mr. Simon, Dr. Hampshire said

there had been no mould growth in the liq. arsenicalis in use by the Commission, but that was only in small quantities, used in a laboratory perhaps comparatively free from floating spores. The Commission had tried a number of formulas for chemical food before ultimately adopting one. They had been asked by the clinical people to get more calcium into it. He had not heard previously that it was a particularly difficult preparation to make, and certainly it had been in use for a long time as a Codex article. Dr. Hampshire thanked Mr. Ellis for his reference to liq. arsenicalis and mould researches. In reply to Mr. Fulham, Dr. Hampshire said there had been some difficulty among makers of commercial extracts, but the B.P. article should now always be uniform. The question raised by Mr. Dobson, concluded Dr. Hampshire, was no new one. There were some real difficulties, but there were reasonable hopes that future B.P. revisions would be in the hands of the professions concerned some time before the date of legal operation. A vote of thanks to Dr. Hampshire was proposed by Dr. Welch (chairman of the Leeds Panel Committee and Executive Officer of the Insurance Committee of the British Medical Association), and seconded by Mr. J. H. Gough (vice-chairman of the Leeds Branch).

**London (W.).**—A meeting of the West London Branch was held at Stewart's Restaurant, New Bond Street, W.1, on November 30, Mr. P. S. Windwood (chairman) presiding. Mr. E. H. Simmons (a member of the Society's Council) delivered an address on *Service*, which was listened to with real appreciation. The founders of the Pharmaceutical Society, Mr. Simmons said, were entirely unselfish in their original aims; in other words, the watchword was "service to the public." To this general idea was attached the education of the chemist, the protection of his calling and benevolence to those who needed help, materially or otherwise. Though the Act of 1868, owing to exterior circumstances, did not by any means represent the aspirations of pharmacy, it had been the means of rendering useful service to the public, augmented in a measure by the Act of 1908. Yet it had to be admitted that these enactments scarcely touched the functions of pharmacy as a calling. Passing to the more immediate work which pharmacy had in hand, Mr. Simmons stressed in vigorous terms the claims of the present day upon pharmacy as a whole, apart from any legal duties to the State. Among these—and there are many more—was the work upon the Codex as a standard work of imperial utility, which could only be undertaken by the willing co-operation of every grade of pharmacy, apart from the high science which such a book required. The post-graduate courses which the Council had initiated recently would be the means of furnishing a training in applied and scientific pharmacy—indeed, would be a continuation of an educative method which had its dawn at Bloomsbury Square. The address also dealt with the research which had been done in the Society's laboratories upon margarine and other subjects. Added to this were the services which the staff of the Society gave through the library and the museum. After several questions had been put and replied to, a hearty expression of thanks was accorded to Mr. Simmons, who briefly responded.

**Reading.**—A meeting of the Reading and District Branch was held on November 23, to hear an address by Mr. R. R. Bennett, B.Sc., F.I.C., Ph.C., on *The British Pharmacopœia, 1932*. The chairman (Mr. W. J. V. Fowden) welcomed the visitors. Mr. Bennett, at the outset, paid a tribute to the work of his fellow members on the Pharmacopœia Commission. He dealt with the deletions, additions and alterations, and gave the reasons for the changes. Ergot, thyroid and digitalis were then dealt with in detail, the reasons for the new preparations and standards adopted for these drugs being explained. Mr. Bennett concluded by referring to the co-operation of the United States Commission, whereby new issues of the respective pharmacopœias would appear alternately. He afterwards replied to various questions. A vote of thanks was proposed by Dr. Sidney Cilford and seconded by Mr. H. W. Vasev.

# Polishes

By Alfred B. Searle, Consultant

(Concluded from the C. & D., December 3, p. 683.)

## Furniture-Polishes

Most furniture polishes, as distinct from lacquers, are essentially solutions of wax in a solvent. At one time beeswax was almost exclusively used, but carnauba, paraffin wax, and numerous other waxes are used to-day. As it is the physical and not the chemical properties of the wax which are important, these substances are selected on a basis of "trial-and-error" and not by chemical tests. When a slight film of grease on the polished surface is not objectionable a little linseed oil may be included in the mixture. It tends to mollify the hardness of the wax and to make the polish spread more easily. The presence of a little white soap is also an advantage as it aids in keeping the wax and oil in suspension and also acts as a detergent. A little kaolin or levigated whiting is sometimes added to act as a mild abrasive and loosen any dirt on the surface of the wood. It must consist of extremely fine grains or it will scratch instead of polishing. The most popular solvent is turpentine, but any of the cheaper synthetic wax-solvents may be used. A simpler, yet good furniture-polish may be made by melting  $\frac{1}{2}$  lb. of beeswax or equivalent in a quart of boiled linseed oil, but this requires more rubbing to remove the oil and to avoid a sticky surface. Any furniture polish may be coloured with alkanet, turmeric or an aniline dye if desired, and though this does not affect its quality it sometimes increases its attractiveness to the user. For the same reason, a little cheap perfume is sometimes added. A typical recipe consists of:—

White wax ... ..	1 lb.
Beeswax or equivalent ... ..	2 lb.
White soap ... ..	1 lb.
Turpentine ... ..	1 gallon
Water ... ..	1 gallon

The waxes should be melted at a gentle heat and the turpentine added and mixed with them. The soap (previously dissolved in the water) is then added, and the whole is stirred continuously until cool. On a large scale, a mechanical mixer is used and arrangements are made for securing a better and more stable emulsion than can usually be produced by hand.

A modern type of furniture-polish is made by mixing 14 lb. of colloidal clay with 100 lb. of mineral (spindle) oil, and adding 160 lb. of water, with vigorous mixing; 60 lb. of naphtha or equivalent is then worked in and followed by a further 160 lb. of water, 10 lb. of turpentine or dipentene is then mixed in, followed by 4 lb. of glacial acetic acid and 8 lb. of antimony chloride. The stirring requires a mixing machine of the emulsifier type, and must be prolonged until a smooth, stable emulsion is produced.

Another modern polish is composed of:—

Hydrowax ... ..	1 lb.
Boiling water ... ..	1 lb.

The wax is placed in a pan and heated to the temperature of boiling water. The water is then added and the mixture stirred thoroughly. When cool, it produces a high polish.

Other emulsified forms of carnauba wax may be used instead of hydrowax; or a colloidal wax-cream may be similarly thinned with water.

## Floor-Polishes

Floor-polishes are of four kinds: (a) Waxes, (b) lacquers; (c) glossy stains; and (d) varnishes. Floor-waxes consist essentially of a mixture of wax and a solvent, the latter being usually added in sufficient

quantity to produce a paste, though sometimes a larger proportion is used and a liquid is produced. Hard paraffin wax is largely used on account of its cheapness, but beeswax (either white or yellow) is preferred where the cost is of secondary importance. An extensively used mixture consists of beeswax and Venice turpentine, with or without a little resin, but a cheaper product consists of beeswax mixed with sufficient turpentine to form a soft paste. It is usually necessary to melt the wax before adding it to the turpentine. The solvent for the waxes is usually turpentine or turpentine-substitute, but spirit, and most of the newer synthetic solvents, such as butyl alcohol, acetone, diacetone alcohol, or methanol, are used. Some floor-polishes contain a considerable proportion of linseed oil instead of the more usual solvents. The wax and oil are heated and stirred until uniformity is obtained. The proportions vary with the waxes and the desired consistency of the product, which must be fairly soft, but not so soft as to be greasy. Emulsions of soap and wax in water are sometimes used, but they require mechanical appliances for their manufacture. They are cheaper than waxes in solvent, but require more rubbing on the floor in order to produce a good gloss. All waxen floor polishes may be coloured by dyes or coloured gums to any desired tint. A little oil, such as lavender, or other cheap essential oil, may be added to impart a pleasant odour. Wood lacquers chiefly consist of nitro-cellulose or one of the modern synthetic resins dissolved in acetone, amyl acetate, or one of the synthetic solvents. The properties are varied to suit the particular ingredients used, and the purpose for which the mixture is employed. A 5 per cent. solution is suitable for many purposes and penetrates the wood better than a stronger solution. When the wood is very porous, it may first be coated with a dilute solution, and after this has dried a second coating, of a stronger solution, may be applied. Glossy stains consist of any convenient brown dye added to a dilute solution of nitrocellulose in a synthetic solvent, but sometimes a mixture of dye, boiled linseed oil, and turpentine is used. Dark brown stains are also made by boiling linseed oil with litharge until very dark-coloured and then thinning it with turpentine to a convenient consistency. Varnishes are essentially solution of copal, shellac, or other gums in spirit, turpentine, or one of the newer solvents. They cannot be made sufficiently cheaply on a small scale for use on floors, and need not be further described. When moderately small quantities are required it is advantageous to use a synthetic copal, with a mixture of thickened linseed and wood oil previously heated to about 30° F., and a very small proportion of a siccative, consisting essentially of cobalt oxide, lead oxide, or manganese dioxide. An excess of siccative should be avoided; based on the proportion of actual metal, as little as 0.1 per cent. of cobalt, 0.6 per cent. of lead, and 0.25 per cent. of manganese should suffice.

Two modern floor-polishes are:—

I	
Ceresin ... ..	5 lb.
Carnauba wax ... ..	10 lb.
Glyco-wax ... ..	5 lb.
Naphtha (or equivalent) ... ..	15 lb.
Turpentine or substitute ... ..	20 lb.

The waxes should be melted, the solvents then added, and stirred vigorously.

II	
Paraffin wax ... ..	10 lb.
Naphtha or equivalent ... ..	30 lb.

The wax is melted and then mixed with the solvent. It may be coloured yellow with any oil-soluble dye.

### Wood Lacquers

When a permanent polish is required as distinct from that produced by furniture cream or french polish, one of the modern lacquers is generally used. This may consist of wax dissolved in a synthetic solvent, but more frequently nitrocellulose dissolved in a synthetic solvent, with or without a plasticiser, is used. The proportions depend so much on the ingredients that they must be adjusted with each batch of material purchased, but about 5 per cent. concentration is customary. An excellent solvent is a mixture of equal parts of acetic ether and benzole to which one-tenth to one-fifth of its volume of amyl acetate is added, but some manufacturers use much more complex mixtures. Some of the many forms of nitrocellulose are more soluble in spirit than are others, but for very concentrated lacquers the addition of benzol or toluol is also necessary. A plasticiser, such as dibutyl phthalate, butyl stearate, tricresylphosphate, or one of the various synthetic resins, is usually added as well as a suitable pigment. The advice of the makers of the nitrocellulose should usually be sought with regard to the precise type of nitrocellulose and of the solvents, as well as that of such substances as butyl alcohol which are added to delay evaporation, increase flow and minimise such defects as blushing.

### Leather Polishes

Polishes and glosses for leather are of four types: (a) Softened waxes which must be rubbed to produce a polish; (b) lacquers; (c) varnishes; and (d) enamels. The last-named require the leather to be "stoved," after being coated, and need not be described in this article. The majority of polishes for boots and shoes are of the first class, but all must be sufficiently elastic not to crack when the leather is in use. In this respect leather polishes and lacquers differ greatly from those used on wood or other rigid surfaces. Boot and shoe polishes have now completely replaced the "blackening" formerly used, and consisting of lamp black, castor oil, or fish oil, and treacle. The modern polishes produce a brilliant gloss with very little effort, but it is questionable whether they preserve the flexibility of the leather so well as the blacking. The chief difficulty in preparing a good shoe polish is to secure a mixture of waxes which is soft enough to spread readily, yet hard enough to produce a good gloss with little effort. Beeswax alone is too hard and lacks elasticity; carnauba and various vegetable waxes, synthetic waxes, and paraffin waxes are obtainable with different degrees of hardness, so that, as a result of "trial and error" a satisfactory mixture can, in time, be obtained. Such a mixture cannot be accurately specified, as the ingredients vary in their properties in different consignments, and must be tried and the composition of the mixture adjusted accordingly. In addition to the waxes, a vegetable oil (such as olive oil or cottonseed oil) or a thick mineral oil, may be used to soften the wax. Great care must be taken to avoid an excess of oil or the product will be greasy and will require too much rubbing to produce a polish. Instead of oil, a cheap (soft) soap is sometimes used; the soap is dissolved in as little water as possible before mixing it with the other ingredients. It increases the ease with which dirt may be removed from the leather, but is regarded by some experts as reducing the final gloss. If no water is used, the soap acts merely as a softening agent for the waxes, and oil is equally effective. The addition of a solvent for the wax is essential, but it is not necessary to use enough to produce a liquid. At one time, turpentine was exclusively used, but paraffin and various synthetic solvents, including dipentene and diacetone alcohol, are usually preferred on account of their lesser odours. A little mirbane, lavender oil, or other cheap perfume is sometimes added. The black may be ivory black, bone black, or other solid pigment, but aniline black, nigrosine, or other black dye, which is soluble in wax or oil is generally used; as little as 0.05 per cent. will suffice. For brown shoes a brown dye is used. The mixture of waxes, oil, and dye is usually melted and sufficient solvent is added to

form a soft paste when the product is cold. As a rough guide with which to start, an equal weight of solvent and wax mixture may be used, but if a very soft mixture is used less solvent must be employed. Many polishes contain too volatile a solvent, which rapidly evaporates, leaving a granular mass, which it is unpleasant to apply. The sale of polishes in collapsible tubes ought to be attractive, as it overcomes this objection, but for some reason it has not been properly developed. Shoe lacquers consist of mixtures of nitrocellulose with a plasticiser, such as butyl stearate, and a solvent, such as diacetone alcohol. They impart a high gloss, which is sometimes regarded as "unnatural," but it is very liable to crack and then becomes very unsightly. There is scope for much improvement in these lacquers for shoe polishes. Lacquers for leather other than shoes may suitably be composed of the substances just described. Owing to the different properties of the various ingredients no definite recipes are of much value, but the manufacturers of the various substances can usually suggest proportions for their particular products. Varnishes for leather are open to the objection that they lack flexibility and so crack readily. They usually consist of a mixture of several kinds of lac, such as shellac, stick lac, or seed lac, or of either natural or synthetic copal, dissolved in spirit and scented with oil of rosemary or other perfume. If a synthetic copal is used, it may be added slowly to one and a quarter times its weight of a thickened linseed oil (or to a mixture of such oil and wood oil) at 300° F. and, after cooling, a siccative containing 2 oz. of metallic cobalt may be added to 225 lb. of the mixture. Sufficient (usually an equal weight) of "thinner" is then added. The customary "thinners" are benzene, turpentine, spirit, solvent naphtha, tetralene, and dipentene. Some turpentine should be used in addition to any other solvent. About 3 per cent. of butyl alcohol is also an advantage, as it improves the flow of the varnish and prevents segregation of the finer particles. It is sometimes advantageous to mix a varnish, such as the one just mentioned, with a lacquer, composed of nitrocellulose and butyl acetate, toluol, and butyl alcohol. Such a mixture is not as flexible as a varnish, but it dries off rapidly with a high gloss, and is more flexible than a lacquer.

A typical modern shoe-cream (not a varnish) consists of:—

Trihydroxyethylamine stearate	... 25 lb.
Beeswax	... 10 lb.
Candellia wax	... 30 lb.
Carnauba wax	... 40 lb.
Turpentine or dipentene	... 10 lb.

These substances are heated to 200° F., with constant stirring, and are then run slowly into 50 gallons of water with much stirring. The cream may be coloured brown or black by adding an oil-soluble dye to the waxes whilst melting them.

### Motor-Car Polishes

Most of the polishes now in use for motor-cars are restricted in composition because of the effect of some solvents on the nitrocellulose or the various resins used in preparing the lacquers with which such cars are coated. It is obvious that any solvent in the polish which would attack the lacquer on the car would be highly injurious to the surface. For this reason there is always some risk in using a new variety of polish on a new car. Solvents which are usually harmless and so are extensively used for motor-car polishes are white spirit, butyl alcohol, and ethyl alcohol. In one or more of these solvents is dissolved carnauba wax, beeswax, seekay wax, paraffin wax, or an equivalent material, which is the prime cause of the polished effect, but a small proportion of abrasive—such as rottenstone, pumice flour or silica flour—is usually added to facilitate the removal of adherent dirt. To increase the detergent effect a little soap is sometimes included, and, whilst an ordinary white soap is generally used, some polish manufacturers now use insoluble soaps, such as calcium oleate, lead oleate, and aluminium oleate with apparently good results. These substances can scarcely be regarded as detergents, but they aid

in giving consistency without imparting the hardness and tendency to crack caused by some waxes. The recent introduction of spirit-soluble nitrocellulose has enabled car polishes to be made with this as a basis which does not attack the ordinary lacquer on the car. A 10 per cent. solution of the nitrocellulose in spirit is used, but a small proportion of toluol or other solvent may be added in cases where it is known that the lacquer on the car will not be attacked by the polish. A little abrasive—usually silica flour—is an advantage for removing dirt but care must be taken to keep the proportion low, or it will produce a cloudy effect on the polished lacquer.

Two modern motor-car polishes are:—

I				
Diatomite dust	...	...	...	280 parts
Isopropyl alcohol	...	...	...	300 parts
Glycerin	...	...	...	100 parts
Paraffin	...	...	...	110 parts
Machine oil	...	...	...	500 parts
Colloidal clay	...	...	...	20 parts
Trihydroxyethylamine linoleate	...	...	...	10 parts
Water	...	...	...	1750 parts

II				
Carnauba wax	...	...	...	30 parts
Paraffin wax	...	...	...	20 parts
Naphtha	...	...	...	70 parts
Turpentine	...	...	...	20 parts

These substances are heated to 200° F. and mixed by prolonged stirring. The mixture is then run slowly into a solution of 10 parts of borax in 70 parts of water and stirred vigorously

## Oil of Lemon

AN important contribution to the present position of lemon oil has been made by Romeo, Galletti and Amoroso ("Rivista Italiana delle Essenze, dei Profumi e delle Piante officinali," 1932, xi, 345). As is well known, much of the so-called hand-pressed oil is in reality either machine-made, or, more usually, a mixture of machine-made with some hand-made oils. The present authors have found a method which will largely assist the chemist in deciding as to the method by which the oil has been made. A series of fifteen each of hand-pressed and machine-made oils has been examined, and in the first two tables are the results of the analyses. In all cases the citral was determined by Romeo's method.

It will be seen that the evaporative residue is much higher in the machine-made samples than in the hand-pressed oils. This naturally raises the specific gravity. Why the citral value should be consistently so much lower in the machine-made oils is not, however, apparent. The figures are of considerable interest, but the chief value of the paper lies in the fact that

*Hand-pressed oils*

--	S.G.	Rotation	Refractive index	Citral per cent.	Evaporative residue per cent.
1	0.8576	+60°	—	4.05	2.43
2	0.8572	+60°55'	—	3.81	2.76
3	0.8580	+60°30'	—	4.5	2.31
4	0.8579	+62°27'	1.4748	3.63	2.60
5	0.8568	+62°47'	1.4747	3.93	2.14
6	0.8572	+65°10'	1.4743	3.93	2.51
7	0.8565	+63°	1.4745	4.08	2.08
8	0.8565	+61°30'	1.4746	4.08	2.07
9	0.8578	+61°38'	1.4747	4.35	2.65
10	0.8576	+63°24'	1.4748	4.44	2.53
11	0.8586	+62°47'	1.4747	4.45	2.8
12	0.8577	+64°3'	1.4746	3.87	2.88
13	0.8577	+62°	1.4745	4.11	2.70
14	0.8584	+62°56'	1.4746	4.14	2.76
15	0.8572	+62°20'	1.4743	4.02	2.35

*Machine-made oils*

--	S.G.	Rotation	Refractive index	Citral per cent.	Evaporative residue per cent.
1	0.8589	+62°36'	—	3.15	5.8
2	0.8593	+57°25'	—	2.89	5.96
3	0.8597	+57°40'	—	3.51	5.63
4	0.8580	+62°	—	3.21	4.45
5	0.8596	+62°36'	1.4747	3.40	5.60
6	0.8592	+59°20'	1.4747	2.68	6.22
7	0.8587	+63°45'	1.4745	3.12	5.54
8	0.8583	+65°20'	1.4750	2.29	5.51
9	0.8588	+59°15'	1.4747	2.56	6.10
10	0.8589	+59°45'	1.4748	2.95	4.93
11	0.8596	+60°12'	1.4750	2.08	7.29
12	0.8591	+59°56'	1.4748	3.36	6.13
13	0.8587	+61°4'	1.4747	2.75	5.54
14	0.8585	+60°4'	1.4750	3.72	4.90
15	0.8581	+60°18'	1.4746	3.48	5.19

the authors have found that the evaporative residue of the machine-made oils has a lower refractive index than that of the residue from the hand-pressed oils. The following method of examination is recommended:—Heat 5 c.c. of the oil on the water bath to constant weight. This will give the amount of the evaporative residue. For each 0.1 gm. of this 1 c.c. of lemon terpenes is added. For example, to 0.125 gm. of residue 1.25 c.c. of terpenes is used. This can be accurately dropped from a graduated 1 c.c. pipette. This gives a solution of a constant weight-volume ratio. The following figures were obtained from the evaporative residues of the thirty samples whose analyses have already been set out.

*Hand-pressed oils*

--	(A) Refractive index of terpenes	(B) Refractive index of solution	B—A
1 ..	1.4736	1.4791	0.0055
2 ..	1.4732	1.4790	0.0058
3 ..	1.4732	1.4784	0.0052
4 ..	1.4743	1.4799	0.0056
5 ..	1.4737	1.4793	0.0056
6 ..	1.4737	1.4792	0.0055
7 ..	1.4737	1.4786	0.0049
8 ..	1.4741	1.4792	0.0051
9 ..	1.4741	1.4790	0.0049
10 ..	1.4746	1.4799	0.0053
11 ..	1.4745	1.4797	0.0052
12 ..	1.4740	1.4798	0.0058
13 ..	1.4737	1.4791	0.0054
14 ..	1.4737	1.4788	0.0051
15 ..	1.4737	1.4797	0.0060

*Machine-made oils*

--	(A) Refractive index of terpenes	(B) Refractive index of solution	B—A
1 ..	1.4733	1.4762	0.0029
2 ..	1.4733	1.4763	0.0030
3 ..	1.4734	1.4768	0.0034
4 ..	1.4732	1.4767	0.0035
5 ..	1.4741	1.4776	0.0035
6 ..	1.4735	1.4764	0.0029
7 ..	1.4735	1.4765	0.0030
8 ..	1.4741	1.4772	0.0031
9 ..	1.4741	1.4770	0.0029
10 ..	1.4749	1.4781	0.0032
11 ..	1.4745	1.4769	0.0024
12 ..	1.4745	1.4774	0.0029
13 ..	1.4745	1.4772	0.0027
14 ..	1.4740	1.4767	0.0027
15 ..	1.4740	1.4770	0.0030

A careful examination of the above figures shows that the difference in the refractive indices of the two residues is so marked that it should be possible, with careful manipulation, to decide whether a given oil is hand-pressed or machine-pressed. A very good opinion can, apparently, be formed in the cases of mixtures of the two oils, especially when they contain less than 50 per cent. of genuine hand-pressed oil.

# The Preparation of Emulsions

WHEN two liquids which are not mutually soluble are vigorously agitated together, fine globules of the one become dispersed through the other, and there results an opaque mixture known as an emulsion. In any particular instance two kinds of emulsion are possible. In a typical case such as petroleum oil and water one can have either fine globules of oil dispersed through the water, or conversely, globules of water dispersed through the oil. These are known as oil in water and water in oil emulsions respectively. In pharmaceutical work the oil in water modification is of by far the greater importance. The other is usually only met with in ointments and preparations of a similar consistency. It may be of interest to mention in passing that the operation of churning cream in the manufacture of butter involves a change over from the oil in water form to the water in oil modification. Such emulsions of two pure liquids are, however, far from permanent, and if allowed to stand soon separate into two layers. The time required for this separation depends on the degree of fineness of the globules that has been attained, on the difference in specific gravity between the two components, and on their surface tension. The size of the dispersed globules in a well-made emulsion is of the order of  $10^{-5}$  c.m., and when examined under the ultra microscope they are seen to exhibit rapid Brownian movement.

## Emulsifiers

A permanent emulsion cannot be made from two immiscible liquids. In such cases in order to produce a permanent emulsion it is necessary for a third substance to be present, known as an emulsifier, of which there are two types, solid and liquid. The solid emulsifiers do not play any important part in the manufacture of pharmaceutical and similar preparations, and are only mentioned as a matter of general interest. They consist of finely divided substances insoluble in either of the liquids to be emulsified and which form an adsorbed film on the dividing surface of the two phases and prevent coalescence of the dispersed globules. If the emulsifier is more easily wetted by the aqueous component an oil in water emulsion is produced, while the water in oil form results when the reverse is the case. Among the solid emulsifiers may be mentioned finely divided carbon unheated clays, freshly precipitated calcium carbonate, and the basic sulphates of iron, copper and nickel. The liquid emulsifiers, which are by far the most important practically, consist of colloidal bodies soluble in one or other of the two components of the emulsion. If the emulsifier is soluble in water it promotes the formation of a stable oil in water emulsion, while if it is soluble in the oil, the water in oil modification is produced. Albumen, saponin, gum acacia, gum tragacanth, casein and decoction of Irish moss are excellent emulsifiers which can be used in medicinal and food preparations. Soaps, especially the potash soft soaps, are also excellent. Ordinary soft soap is the best emulsifier for petroleum, and is used extensively for making the paraffin emulsions used for spraying plants to destroy greenfly. Caustic alkalis have no direct value as emulsifiers, but only act through forming soaps with the free fatty acids contained in most vegetable oils. The systematic grading of emulsifiers according to their efficiency has not been carried out, and would probably not be practicable, as the order of merit would doubtless vary with the liquids to be dispersed. Clark and Mann, working on petroleum emulsions with the addition of albumen, starch, gum acacia and dextrin, found considerable differences in the effectiveness of these four emulsifiers, and placed them in the order named, albumen being easily at the head of the list. Donnan, experimenting with the sodium salts of the fatty acids, found that emulsifying power was not shown by those with a lower molecular weight than lauric acid. He attributed this to the absence of colloidal properties except in the higher members of the series. H. Bennett ("Industrial and Engineering

Chemistry," November 1930) describes two emulsifying agents which in his hands have given very good results. They are ammonium linoleate and trihydroxyethylamine stearate, both of which are produced commercially. The linoleate paste is dissolved in water and the oil to be emulsified is added slowly with continuous and vigorous stirring until emulsification is complete. The following table shows the amounts of water, oil and emulsifier required for various mixtures (all parts by weight):—

Material emulsified	Parts	Water parts	Ammonium linoleate parts
Mineral oil .. .. .	90	90	10
Kerosene .. .. .	90	90	8
Naphtha .. .. .	90	100	7
Benzene .. .. .	90	100	7
Gasolene .. .. .	90	100	7
Cottonseed oil .. .. .	90	90	11
Linseed oil .. .. .	90	150	8
Olive oil .. .. .	80	60	10
Castor oil .. .. .	90	80	12
Pine oil .. .. .	90	90	10
Chinawood oil .. .. .	90	80	12
Peanut oil .. .. .	90	80	12
Coconut oil .. .. .	90	80	12
Paraffin wax .. .. .	90	320	24
Carnauba wax .. .. .	90	420	12
Asphaltum .. .. .	40	200	8
Beeswax .. .. .	90	500	12
Glyco wax .. .. .	90	500	12
Ozokerite .. .. .	90	400	14
Turpentine .. .. .	90	100	8
Nitrobenzene .. .. .	90	100	8
O. dichlorbenzene .. .. .	90	100	8
Methyl salicylate .. .. .	50	100	8

Emulsions made according to the above formulas are useful as sprays, disinfectants, insecticides, lubricants, cleaners, and so forth. The mineral oil emulsion is typical of the usual polishes for furniture and automobiles, and by the addition of a very finely powdered abrasive, such as silica, rouge, or tripoli powder, a satisfactory metal polish is obtained. The amount of solid added must be regulated by the final consistency which it is desired to obtain. In the case of the wax emulsions the process of mixing must be carried out at a temperature above that of the melting point of the wax. The carnauba wax formula makes an excellent furniture polishing paste of enduring lustre, which does not show finger marks and requires less vigorous rubbing than many commercial brands. If the melting of the wax and the subsequent process of emulsification cannot be carried out below the temperature of boiling water, the solid body must be dissolved in an inert organic solvent.

## Trihydroxyethylamine Stearate

is a wax-like product of amber colour possessing a faint fatty odour. It is more expensive than the linoleate, but can be used for the preparation of cosmetics. An excellent liquid cold cream can be made as follows:— Dissolve 14 parts of the stearate in 72 parts of white petroleum oil heated to 60°-70° C. Add 150 parts of water with vigorous and continual stirring until homogeneous. This will give a rich creamy emulsion of great stability, which may be perfumed as desired. By dissolving the stearate in hot water, viscous opalescent solutions are obtained, which are being used in preparing hand lotions, which assume a pearly appearance on cooling. If a milky lotion is desired, a little mineral or other oil is melted with the trihydroxyethylamine stearate, and the hot water is added slowly with vigorous stirring.

The preparation of emulsions for internal use has been exhaustively studied by Lester Smith and Hazley ("Quarterly Journal of Pharmacy," 1930). These authors come to the conclusion that gum acacia is most suitable, especially when a small amount of tragacanth or infusion of Iceland moss is also added. Although

the two latter bodies are inferior in emulsifying power to the gum acacia; yet they increase the viscosity of the preparation and prevent the "creaming" or partial separation which is liable to take place when acacia is used alone. For instance, with a 30 per cent. emulsion of cod-liver oil, separation was apparent after six days when 0.8 per cent. gum acacia was used as the emulsifying agent. When, however, 0.4 per cent. gum tragacanth was also added no separation was visible after twenty-seven days, and even after forty-five days it was only very slight. Cane sugar is effective as a thickening agent, but it is not desirable, as it increases the difference in specific gravity between the oil and aqueous phases, thereby more or less neutralising the advantage obtained from the increase in viscosity.

The use of gelatin is sometimes suggested as an emulsifier for edible preparations, but an effective concentration is not obtained without solidification of the whole mass. In this connection the recent work of J. Knaggs ("Journal of the Society of Chemical Industry," 1932, 61) is of interest, for this investigator finds that if the amino groups present in gelatin are replaced by hydroxyls through the action of nitrous acid, the viscosity is reduced, and at the same time the emulsifying power is increased.

In the practical preparation of emulsions, the whole of the material to be dispersed is triturated or agitated with some or all of the dispersing phase. The thick product may be diluted with more of the dispersing liquid, but further additions to the dispersed substance may not be made. It is also of interest to bear in mind that, after all the ingredients are mixed, complete emulsification is obtained more readily by short periods of agitation alternating with longer periods of standing, than by much more protracted continuous agitation. On a commercial scale the emulsion first produced by

mechanical agitation is usually further treated or homogenised by one of the special mills designed for the purpose. These mills produce a more uniform and more stable product of better appearance than can be obtained by mere agitation.

### A Novel Method

of preparing emulsions has been described by W. T. Richards ("Journal of the American Chemical Society," 1929, p. 1724). He subjected a tube containing benzene and water to irradiation by intense sound waves of a frequency of 300 kilocycles per second. Provided that the tube was first wetted with water, emulsification took place at the surface of the glass. He attributed the action to the transverse vibrations set up in the glass walls of the containing vessel rather than to waves propagated through the liquid. He was successful in obtaining emulsions of mercury and water under similar conditions, and also found that the rapidity of formation was enhanced by the addition of ammonium chloride to the water. Information is not available as to the stability of these emulsions, but it is interesting to note that with water alone he obtained evidence from slight cloudiness produced, that minute particles were torn off from the glass walls of the tube. The amount of material thus disintegrated was too small to be determined gravimetrically, and it is unknown whether such action on the glass forms an essential condition for the production of the benzene-water and mercury-water emulsions he describes. Freedman has prepared emulsions, such as mayonnaise, by this method and has obtained patent protection for the process (British patent 332,533 [1930]). Whether or not this new and interesting method of emulsification will prove to be of much practical importance remains to be seen.—E. R. C. 6/6.

## Curious Customers

A CUSTOMER came in the pharmacy a few days ago and his remark, "Good Heavens! Whatever next?" reminded me that chemists have as customers some of the queerest of people. And to retain that custom it is necessary to bear with them and try not to hurt their feelings. It was another customer who came in whilst we were discussing a wireless set who caused the above remark. The newcomer placed sixpence down, and said "The usual, please." I had it ready close at hand, for I expected him about that time on Saturday afternoon. My friend remarked as the man went out, "That was a quick deal." I told him about it. The old gentleman who had come in had a sister, a crank. She had ruined her constitution by taking all sorts of unsuitable patent medicines. She had a mania for them. Our local doctor happened to mention her one day, and in this way I discovered who the old gentleman was—her brother. By a coincidence the brother explained why he came in so regularly and asked if it was possible to stop his sister taking all these doses. Eventually the doctor, the old gentleman and myself agreed upon a conspiracy. The old lady should have her weekly dose, it should be of a different colour and taste each week, but it should be harmless. I agreed to make it up. And the cost was arranged at sixpence per bottle. So each Saturday afternoon the old gentleman comes in for "The usual, please."

### The Budding Photographer

One of my most regular photographic customers is a small bewhiskered man, who comes in, bright weather or dull, for a threepenny packet of developer, and occasionally a tin of acid hypo. He came in so often that I one day asked him, "Had any luck in the competitions?" He brightened up tremendously, and said, "No, he had not gone in for any yet." A chat ensued and he showed me some prints. Since then he has shown me others. But I have yet to discover the subject of his photography. My customer says quite frankly that he is not satisfied yet, but he will get a

good print some day. I have suggested under-exposure or over-development, and he nods solemnly and agrees "probably," so we are both hoping!

### The "Tuck" Shop

Then there is the small boy who comes in regularly once a fortnight for "two pennorth o' sulphur tablets, please," and who, once outside the shop, immediately divides them between his two smaller brothers and himself. Whether he likes them or whether mother has ordained it I have not yet discovered.

### Letting the Cat Out

There is one customer I shall lose some day—through laughing at her! She comes in on her shopping day, with large marketing bag and—her cat! She will persist in keeping her purse at the bottom of the bag, and the inevitable struggle each time she enters the shop, to reach the purse without letting go of pussy, is agony for me. I simply ache to laugh, and that cat knows it, I feel certain. The way he watches me whichever angle he may be in. . . . One of these days my assistant will be out and I shall have to serve the old lady.

### Typical of Many

I have another regular customer, who, in a sprightly manner demands attention for his small brother, and takes it for granted that I don't need paying. The door of the shop opens, a tousled head is poked in and a voice seeks me out, "Come along mister! He been and done it again! Fall over his blooming shadow, he would." And there is the wee brother, with his knees damaged by his unavoidable stumbles. A piece of lint and a clean-up and they disappear. Once the larger boy did say, "You're a sport, mister, you've done that fine!"

Yes, some of a chemist's customers are as curious as many of the articles on his shelves.

# The Beginnings of Alchemy

WHEN Robert Boyle, in the seventeenth century, published his "Sceptical Chymist," a period was put to the beliefs and practices of the alchemists and the foundations were laid for the science of chemistry. The gropings of civilised mankind after the truth as to the constitution of matter extended over at least two thousand years, and occupied the thoughts of generations of students of many nationalities. For approximately half that time a considerable proportion of the practitioners of the chemical arts were alchemists, who were a class distinct from those who carried on the operations of metallurgy, pottery, dyeing, etc. The alchemist added to his craftsmanship a jargon and a multiplicity of intricate manipulations of so mystifying a character as to be incomprehensible to all who were not themselves adept. The secrecy with which the alchemist surrounded his skill and knowledge was not merely for the purpose of safeguarding the trade secrets of an ordinary craft, but had quite a different object. Alchemy and chemistry existed side by side at the same time, and even in the same persons. The professors of the former, believing in the doctrine of the four Aristotelian elements and later in the "tria prima" of Paracelsus—the essential mercury, salt and sulphur—prosecuted two aims, namely, (a) the search for the universal medicine wherewith to win immortality, and (b) the production of a substance, or essence, with which to purge the grosser metals of their impurities and by its action upon the prima materia to produce the noblest metal of them all—gold; these they wished to screen from the eyes of the vulgar.

Information as to the extent of what we may call primitive chemistry is slowly accumulating. Quite recently Dr. R. Campbell Thompson wrote his monograph on the "Chemistry of the Ancient Assyrians," and much attention has been bestowed upon the Greek papyri discovered during the last century. The arts of pottery, metal working and dyeing and the mixing of medicines among the ancient peoples have left significant traces in the records which have been discovered. The papyri found about a century ago were particularly valuable, because they revealed that the Egyptians in the third century of the Christian era, and perhaps earlier, were acquainted with materials and processes known to Dioscorides and Pliny. In the documents of those times there is very little to be found indicating that the writers looked up on the operations which they describe as having any purpose similar to those of the alchemists of later days.

## THE CONTRIBUTION OF THE ARABIANS

Western Europe received its medical and chemical lore at the hands of the Arabians, who had entered into the heritage of ancient Greek and Roman science by way of the later Alexandrian school. It is generally accepted that so far as Greek learning was concerned this was transmitted to the Arabians by the means of Syriac manuscripts. One of the first and chiefest of these early Muslim adepts was the so-called Geber (Jabir ibn Hayyan), who lived in the eighth century. Before his day the operators at the chemical furnace had become infected with the two peculiar tenets of alchemy. It seems safe to assume from such evidence as is available that the pursuit of the elixir of life and the philosophers' stone arose in the West some time between the third and seventh centuries. Any history of alchemy must take some note of the mythical origin of the craft invented by its practitioners; but for an immediate purpose we may accept Hermes Trismegistus and the other legends at our own value. There was an early primitive practical chemistry of which evidence is traced in Greek, Egyptian and Roman classics; and it also appears that at a later date there was added to this a learning of a different order from that of craftsmanship—something mystical and esoteric. This is the distinctive mark of alchemy. Whence did this spring? When did it arise?

During the last century, and particularly since the Boxer rebellion, there has been intensive study of early Chinese literature; and the possibility of Chinese contributions to the science of the early centuries of the Christian era have not been overlooked. In respect of alchemy, one authority has expressed the opinion "that it is almost certain that Chinese, Greek and Arabic alchemy must have had a common source of origin." A useful contribution to the discussion of this question has recently been made by Dr. O. S. Johnson,\* of the University of California. His thesis is written to show "that Chinese alchemy was an indigenous growth originating in Taoism"; to trace its historical development, and to give reasons for thinking that there was a probable connection between Chinese alchemy and that of mediæval Europe. In his first two chapters Dr. Johnson discusses the earlier and the later Taoist teachings, and shows that while the later Taoism is one of the "three religions of China," early Taoism consisted in the endeavour of its founder, Lao Tzu, to discover "a fundamental principle and its action in the universe." In the process of time the followers of Lao Tzu and Chuang Tzu "found in Tao both the source and agency of immortality." The third chapter is devoted to a description of the "alchemy of prolonging life." Immortality in the later writings is clearly synonymous with longevity in most cases; in others it connotes perpetual material existence. The following recipe is taken from Pao Pu Tzu (4th century A.D.). "Take three pounds of genuine cinnabar, and one pound of white honey. Mix them. Dry the mixture in the sun. Then roast it over a fire until it can be shaped into pills. Take ten pills, the size of a hemp seed, every morning. Inside of a year white hair will turn black, decayed teeth will grow again, and the body will become sleek and glistening. If an old man takes this medicine for a long period of time he will develop into a young man. The one who takes it constantly will enjoy eternal life, and will not die."

## THE TRANSMUTATION OF METALS

The transmutation of metals was attempted, says Dr. Johnson, in China, at a very early date. During the reign of the famous Emperor Wu Ti (140-86 B.C.), the master alchemist of the Imperial Court, Li Shao-ch'üw, proclaimed his ability to accomplish this in these words:—"I know how cinnabar transforms its nature and passes into yellow gold. I can rein the flying dragon and visit the extremities of the earth. I can bestride the hoary crane and soar above the nine degrees of Heaven." Among the Chinese alchemists the philosophers' stone was known under a variety of names, such as "the drug of transmutation," and "the divine drug." These claims and terms are similar to those employed by the Arabians. In the account given by the author of the later development of Chinese alchemy, he produces much evidence to show how it became allied with astrology. Dr. Johnson, in his last chapter, considers the possible means whereby the alchemy of the Far East may have projected itself by way of Persia into Alexandria and the West. He summarises his interesting treatise in these terms:—"From such circumstantial but cumulative evidence it seems to the author just and reasonable to conclude that there is, in all likelihood, a definite historical connection between the alchemy of China and that of mediæval Europe." The book is a valuable contribution to the subject of alchemy, especially as Dr. Johnson has supplied a good bibliography of his classical and modern authorities. But whether the Chinese derived their ideas from Greece, as suggested by Dr. H. A. Giles, or the Arabians theirs from China, still remains to be proved; and the influences which flowed from Egypt will have to receive adequate consideration before a conclusion can be satisfactorily reached.

\* A study of Chinese Alchemy—by Dr. O. S. Johnson, The Commercial Press, Limited, Shanghai, China, 1928—Price, \$3.00 (three dollars).

# Corner for Students

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist & Druggist,' 28 Essex Street, London, W.C.2."

## Report on the November Analytical Exercise

THE powder distributed to students on November 8 contained four parts by weight of lead chloride, one of mercuric chloride, and five of potassium sulphate. The calculated composition of such a mixture is:—

Pb ... ..	29.8
Hg ... ..	7.4
K ... ..	22.4
Cl ... ..	12.8
SO <sub>4</sub> ... ..	27.6
	100.0

Samples of the powder were distributed to twenty-four students and eleven reports of analyses were returned for examination. Chlorine was the only constituent reported in every case. The sulphuric acid radical was missed by one student, lead and mercury by three each, and potassium by two. Constituents reported, but not actually present, included arsenic, bismuth, cadmium, aluminium, cobalt, nickel, manganese, barium, calcium, magnesium, and ammonium; also the radicals of carbonic and nitric acids.

It was anticipated that the two preceding exercises, in which powders were submitted for examination by preliminary tests only, would have directed the particular attention of students to these tests in the present analysis, and there was a gratifying realisation, inasmuch as an adequate preliminary examination preceded the systematic analysis, as reported, in nearly every instance. Those students who had the results of this examination in their hands were able to proceed to the systematic analysis with a fairly confident assurance as to the presence of several radicals and of the absence, in quantity at any rate, of numerous others. We are regarding as of special merit in the analyses of the present tournament series, the carrying out of a systematic preliminary examination.

A number of the inaccuracies in the reports received were due to the cause that has been commented upon frequently in this column; that is, the failure completely to effect the precipitation of the copper-group metals as sulphides. Hydrogen sulphide must, of course, be employed in quantity sufficient to provide the requisite amount of sulphur, but apart from this, thorough saturation of the solution with the gas, at low temperature, is essential to ensure the precipitation of the sulphides that are more readily decomposed by hydrochloric acid—those of lead, bismuth, and cadmium, in particular. Lead that had escaped precipitation as sulphide was responsible for the reactions observed by several students and attributed by them to nickel, cobalt, and others of the metals already mentioned as reported in error. Precipitation in quite cold solution and with low acid concentration should be practised, and, after filtration, a sample of the filtrate should always be tested with hydrogen sulphide to make certain that the reagent will not cause further precipitation. Only after observing this precaution can the examination of the filtrate be continued with safety.

## PRIZES

The First Prize for the best analysis has been awarded to:—

J. C. HODGSON, c/o 56 Bank Top, Blackburn.

The Second Prize has been awarded to:—

W. L. EVERETT, The Limes, The Avenue, Hatch End, Middlesex.

**First Prize.**—Any scientific book that is published at a price not greatly exceeding fifteen shillings may be taken as a first prize.

**Second Prize.**—Any scientific book which is sold for about seven shillings and sixpence may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the publisher, naming the book or books they select.

## MARKS AWARDED FOR ANALYSES

J. C. Hodgson (1st Prize) ... ..	90	Bon-Accord ... ..	73
W. L. Everett (2nd Prize) ... ..	87	Quisque errat ... ..	73
Wyennf ... ..	83	711 ... ..	66
Persistence ... ..	80	Leumas ... ..	65
Wyong ... ..	79	The Potter ... ..	61
		Nihil sine labore ... ..	59

## TO CORRESPONDENTS

J. C. HODGSON.—You did not make it clear whether or not the addition of sodium phosphate was designed to prove the absence of the barium group metals and of magnesium, or of magnesium alone. The fact that a precipitate was not produced, sufficiently indicated the absence of all. When you added lead acetate as a test for a chromate, you should have obtained a white precipitate of lead sulphate.

W. L. EVERETT.—On heating the powder with sodium hydroxide as a test for ammonium compounds, you should have observed and reported the production of a yellow insoluble substance—mercuric oxide. We were not able to confirm the presence of traces of manganese or calcium, or of a carbonate.

WYENN.—Note that the precipitate of potassium platinichloride, when obtained, is yellow, not white. Read the reply immediately preceding.

PERSISTENCE.—The test for a nitrate by heating with dilute sulphuric acid and copper is not a particularly delicate one. Much more delicate tests are available and are easily applied. The black precipitate that you observed on adding ammonium sulphide must have been due to incomplete precipitation by hydrogen sulphide of the metals of the preceding group. Perhaps the free acid present was too concentrated, or perhaps excess of hydrogen sulphide was not employed.

WYONG.—It is difficult to understand how you succeeded in completely dissolving the hydrogen sulphide precipitate in hot dilute nitric acid, since it must have consisted, in part, of mercuric sulphide. If, as you report, the precipitate was well washed, so as to be free from adhering hydrochloric acid, the aqua regia effect in dissolving the precipitate would not be produced.

BON-ACCORD.—It was not sufficient to observe that the hydrogen sulphide precipitate did not dissolve completely in yellow ammonium sulphide: the filtrate should have been examined to ascertain if any part of it had dissolved. We recommend you to examine carefully the behaviour towards acids of a precipitate known to consist of lead and mercuric sulphides—the latter in much smaller proportion than the former.

QUISQUE ERRAT.—Although the hydrogen sulphide precipitate was black, this did not justify the assumed absence of arsenic-group metals. How you came to attribute to the presence of cadmium a precipitate that must have consisted mainly of lead sulphide, is not easily understood.

711.—The reactions that led you to report the presence of aluminium and magnesium were almost certainly due to traces of lead that had escaped precipitation as sulphide.

LEUMAS.—The reactions that you attributed to bismuth were really due to lead. Make a careful study, at the laboratory bench, of the resemblances and the differences in the reactions of these two metals.

THE POTTER.—See the general remarks on testing for a nitrate, and read the observations in preceding replies on incomplete precipitation by means of hydrogen sulphide.

NILH SINE LABORE.—Your preliminary testing was well done, but you failed seriously in the systematic analysis; since you missed entirely the two principal constituents, which made up between them nearly 60 per cent. of the powder.

# Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

## 28 Essex Street, W.C.2, December 8

THE markets have been rather disappointing this week, with indications in many directions of less business being done. The general tone, however, is fully steady, the continued weakness in sterling exchange rates making those markets affected by this contingency definitely firmer. The cheapness of the £ has attracted a moderate amount of export business. In the pharmaceutical chemicals markets the advances in values recorded last week are all maintained. This week a number of products that have to be imported are quoted at substantially higher prices to balance exchange loss. Makers' quoted price for cream of tartar is dearer. On and from January 1 next imports of hydroquinone, phenacetin and resorcin will be liable to key industry duty. Business in this market has been rather less than recent average. In crude drugs business has been sluggish, but prices are holding up well. Japanese camphor is dull on spot, with shipment reported slightly dearer. Cod-liver oil is again dearer, and shipment is firm with supplies limited. Japanese menthol has been dull all the week, and spot values have fallen back; shipment is also easier, but the tone is steady despite lack of business. Business in essential oils has been generally slow, but there are very few price changes to record. Bergamot is irregular. Ceylon citronella is a point dearer, and Java a point easier. West Indian lime continues firm and scarce. Japanese peppermint, except for some spot transactions, has been flat. Spanish spike is steadier at slightly better figures. Fixed oils have been in modest demand, with values about balancing on the week. American turpentine has been dull, and the demand for linseed (raw, naked) has been slow. In coal tar products the chief item of interest has been carbolic acid crystals, with the market very firm and supplies scarce.

## Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	December 8	Value of the £
Amsterdam ..	Fl. to £	12.107	8.04½	13.8½
Berlin ..	Mks. to £	20.43	13.57½	13/3½
Brussels ..	Belga to £	35	23.32½	13.4
Copenhagen ..	Kr. to £	18.159	19½	21.1½
Lisbon ..	Esc. to £	110	106	19/3½
Madrid ..	Ptas. to £	25.224	39½	31/3½
Milan ..	Lire to £	92.46	63	13/5½
Montreal ..	Dol. to £	4.86½	3.75½	15/5½
New York ..	Dol. to £	4.86½	3.23½	13/3½
Oslo ..	Kr. to £	18.159	19.45	21/5
Paris ..	Fr. to £	124.21	82½	13/3½
Prague ..	Kr. to £	164.25	109	14/1
Stockholm ..	Kr. to £	18.159	18.32	20/2
Warsaw ..	Zloty to £	43.38	28½	13/6½
Zurich ..	Fr. to £	25.2215	16.70½	13/3½

Bank rate 2 per cent.

## Pharmaceutical Chemicals, etc.

SUBSTANTIAL advances are recorded in spot values of a number of important products which have to be imported. Hydroquinone, phenacetin and resorcin will be liable to duty under Part I of the Safeguarding of Industries Act, 1921, upon importation on and from January 1, 1933. Business has been rather slower this week, but the general tone is very steady, with values fully maintained.

ACETANILID.—The market continues steady, with small business passing: B.P. crystals and powder, 1s. 5½d. to 1s. 3d. per lb. as to quantity.

AMIDOL.—Quoted prices are maintained; market remains quiet: 55 lb., 7s. 3d.; 28 lb., 7s. 6d.; 14 lb., 7s. 11d. per lb., in 7-lb. tins.

AMIDOPYRIN.—Dealers' spot prices are still rather less than forward delivery on current exchange rates: crystals, five cwt., 19s. 3d.; two cwt., 19s. 7d.; less than two cwt., 21s. 3d. per lb., with powder 2½d. per lb. extra.

AMMONIUM BENZOATE.—Business is slow: spot is quoted from 3s. 4d. to 3s. 6d. per lb. as to quantity.

ASPIRIN.—This market is firm, with a sustained demand. Makers' and dealers' prices are level and tend to advance. Home trade: ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 2s. 9d.; 14 lb., 2s. 10d.; 7 lb., 3s. per lb. Export to Colonies and British Possessions: ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d. per lb. f.o.b.; less than one cwt., 2s. 9d. per lb. ex works.

BARBITONE.—Spot quotations from dealers are cheap compared with forward delivery on current exchange rates: spot one cwt., 11s. 4d.; 56 lb., 11s. 6d.; 14 lb., 11s. 10d.; smaller parcels, up to 12s. 6d. per lb.

BENZOIC ACID (B.P.).—A moderate business is being done, with the market quite steady: quantities, ex works, 1s. 9½d.; spot parcels, 1s. 10d. to 2s. 1d. per lb., ex store, as to quantity.

BISMUTH SALTS.—Makers' prices continue at the advance recorded last week.

BROMIDES.—Makers' and dealers' prices are keeping steady; business is fair. ammonium, not less than five cwt., 1s. 9d.; one cwt., 1s. 10d.; smaller quantities, 2s. 1d. per lb.; potassium, B.P. crystals and granular, not less than five cwt., 1s. 6d.; one cwt., 1s. 7d.; smaller quantities, 1s. 10d. per lb.; sodium, B.P., not less than five cwt., 1s. 3d.; one cwt., 1s. 9d.; smaller quantities, 2s. per lb. net without engagement. Special prices for larger quantities.

BUTYL CHLORAL HYDRATE.—The market is steady, with quoted prices unchanged: spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1-lb. bottles.

CAFFEINE.—Spot supplies continue to be offered at very keen prices; business limited: pure alkaloid, 5s. 6d. to 6s. per lb.; citrate, 4s. 5d. to 4s. 10d. per lb. as to quantity.

CALCIUM LACTATE.—A fair inquiry continues, with quoted prices competitive: spot, one cwt., 1s. 1½d.; 56 lb., 1s. 2½d.; 28 lb., 1s. 3½d.; smaller parcels, up to 1s. 6d. per lb.

CHLORAL HYDRATE.—Makers' prices for home consumption are steady: duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 4d.; one cwt., 3s. 5d.; 56 lb., 3s. 6d.; 28 lb., 3s. 7d.; 14 lb., 3s. 8d. per lb.; 28-lb. jars, one penny per lb. extra.

CITRATES.—Home makers' prices are as follows:—

	Under 4 lbs.	4 lbs. and under 7 lbs.	7 lbs. and under 14 lbs.	14 lbs. and under 28 lbs.
	s. d.	s. d.	s. d.	s. d.
Ferri et ammon.cit., B.P. (brown) ..	2 5	2 3	2 1	1 11
Potass. citras, B.P. ..	2 3	2 1	1 11	1 9
Sodii citras, B.P.C., 1911..	2 0	1 10	1 8	1 6
" " B.P.C., 1923..	2 4	2 2	2 0	1 10

28 lb., 5d. per lb. less. Special prices for bulk quantities.

CITRIC ACID (B.P.) CRYSTALS.—British makers' quoted price for home consumption is at last week's reduced figure of 10l. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are offering some parcels at very keen prices.

CREAM OF TARTAR.—Business has been fairly satisfactory, with makers' quoted price for 99 to 100 per cent. dearer at 87s. per cwt., less 2½ per cent. discount, nominal and without engagement. Dealers are offering at about the same figure.

CREOSOTE (B.P.).—Spot values from dealers tend to be a point cheaper, from 2s. 0½d. to 2s. 3d. per lb. as to quantity.

CREOSOTE CARBONATE remains dull, but spot values are very steady at 8s. 6d. to 8s. 9d. per lb. as to quantity.

GUAIACOL CARBONATE.—The higher prices recorded last week are well maintained: spot, 8s. 11d. to 9s. 2d. per lb. as to quantity.

HEXAMINE.—Business continues on a fair scale, with prices tending to be firmer: free-running crystals, ten cwt., 2s. 2½d.; two cwt., 2s. 4d.; one cwt., 2s. 4½d.; smaller

parcels, up to 2s. 6d. per lb. Forward prices would be dearer.

**HYDROQUINONE.**—Controlled prices continue at former rates: ten cwt., 5s. 1½d.; five cwt., 5s. 2½d.; two cwt., 5s. 3d.; one cwt., 5s. 3½d.; 56 lb., 5s. 4½d.; 28 lb., 5s. 6½d.; 14 lb., 5s. 8½d.; 7 lb., 5s. 10½d. per lb., carriage paid. All quotations are nominal. This product will become liable to duty under Part I of the Safeguarding of Industries Act, 1921, on and from January 1, 1933.

**IODIDES.**—Makers' prices for these salts continue at the advances recorded last week.

**LACTIC ACID (B.P.).**—The market is keen for the moderate business quantities: quantities in carboys, 1s. 5½d. to 1s. 6d.; in demijohns, about 1s. 7d.; in winchesters, 1s. 8½d. to 1s. 9d. per lb. as to quantity.

**MERCURIALS.**—Makers' prices are fully steady and may advance slightly on current metal values.

**METHYL SALICYLATE (B.P.).**—The market is firm as quoted by makers and dealers and business is satisfactory: one ton and over, 1s. 4½d.; ten cwt., 1s. 5d.; five cwt., 1s. 5½d.; one cwt., 1s. 6d.; less than one cwt., 1s. 6½d.; smaller quantities in bottles, up to 2s. per lb.

**METHYL SULPHONAL.**—Spot prices quoted by dealers are firm. To arrive would cost more on current exchange rates: two cwt., 21s.; one cwt., 22s.; 56 lb., 22s. 6d.; small parcels, 23s. per lb.

**MILK SUGAR.**—The quoted prices for Continental material are much dearer: one ton, 53s. 6d.; ten cwt., 54s. 6d.; two cwt., 56s. 3d. per cwt., in two-cwt. cases.

**PARA-FORMALDEHYDE.**—The market is about unchanged, with competition for a limited business: 100 per cent. powder, quantities in kegs, 1s. 2d.; smaller parcels, up to 1s. 7d. per lb.

**PHENACETIN.**—The duty under Part I of the Safeguarding of Industries Act, 1921, will be reimposed on imports on and from January 1, 1933. A new scale of prices has been issued, and on current exchange rates work out as follows: crystals or powder, ten cwt., 6s. 2d.; five cwt., 6s. 4d.; two cwt., 6s. 6d.; smaller parcels, up to 6s. 11d. per lb., duty paid, ex warehouse.

**PHENAZONE.**—Dealers' prices are rather irregular, with material to arrive costing more on current exchange rates: spot, crystals, ten cwt., 10s. 4d.; five cwt., 10s. 8d.; two cwt., 10s. 10d.; and less than two cwt., up to 11s. 3d. per lb., with powder 2½d. per lb. extra.

**PHENOLPHTHALEIN.**—Makers' agreed prices are very steady; business about average: five cwt., 3s. 10d.; two cwt., 3s. 11d.; one cwt., 4s.; 28 lb., 4s. 3d.; 14 lb., 4s. 6d.; 7 lb., 4s. 9d.; smaller parcels up to 5s. per lb.

**PHENYL ETHYL BARBITURIC.**—Business is limited; controlled prices unchanged: one cwt., 38s. 6d.; 56 lb., 39s. 6d.; 28 lb., 41s.; smaller lots, 42s. 6d. per lb. in 2-lb. bottles, carriage paid; small quantities in different packing at higher prices.

**POTASSIUM PERMANGANATE (B.P.).**—Dealers are doing a fair business in small parcels: quantities, in two-cwt. drums, 8½d. to 9½d.; druggists' parcels, 9½d. to 10d. per lb. as to quantity.

**POTASSIUM SULPHOGUAIACOLATE.**—The higher prices recorded last week are maintained: spot, two cwt., 4s. 11½d. up to 5s. 2½d. per lb. for small parcels.

**PROGALLIC ACID.**—Market is steady but rather dull: 56 lb., 7s.; 28 lb., 7s. 3d.; 14 lb., 7s. 9d.; 7 lb., 8s. 6d. per lb., in 7-lb. tins.

**QUININE SULPHATE.**—The Convention price is steady at 2s. 7d. per oz., carriage paid on bulk quantities: salicylate, 3s. 4d.; hydrochlor, 3s. 3d.; hydrobromide, 3s. 3d.; bisulphate, 2s. 7d.; bihydrochloride, 3s. 6d. per oz.

**RESORCIN.**—The market is steady, but business is not of much account: crystals, one cwt., 4s. 11d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; less than 7 lb., 6s. per lb., with powder 3d. per lb. extra. Imports of this product landed on and from January 1, 1933, will be liable to duty under Part I of the Safeguarding of Industries Act, 1921.

**SALICYLIC ACID (B.P.).**—Makers' prices are firm at the advance recorded last week: one ton, 1s. 7d.; ten cwt., 1s. 7½d.; five cwt., 1s. 8d.; one cwt., 1s. 8½d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s.; 1 lb., 2s. 2d. per lb.

**SALOL.**—Business is slow; quoted prices are held at former levels: spot, crystals, two cwt., 5s. 9d.; one cwt., 5s. 11d.; 56 lb., 6s.; smaller parcels, 6s. 1½d. per lb.; powder, 2d. per lb. extra.

**SANTONIN.**—The controlled scale of prices recorded last week is maintained, as follows:—

Not less than 50 kilog. ...	125 American dollars per kilog.
Not less than 25 kilog. ...	130 American dollars per kilog.
Not less than 10 kilog. ...	137 American dollars per kilog.
Not less than 5 kilog. ...	147 American dollars per kilog.
Not less than 3 kilog. ...	152 American dollars per kilog.
Not less than 1 kilog. ...	162 American dollars per kilog.

Carriage paid, packages free, net cash thirty days. Higher prices for smaller quantities, packages extra. Quotations are only made in American dollars.

**SODIUM BENZOATE (B.P.).**—Business is of limited volume, with competitive prices quoted: bulk quantities, 1s. 6½d.; cwt. lots, 1s. 7½d.; smaller parcels, up to 2s. per lb. Limited quantities of material conforming to the new B.P. available at 1s. 8d. to 1s. 9d. per lb. as to quantity.

**SODIUM DIETHYLBARBITURATE.**—Market is firm as quoted and tends to advance: spot, one cwt., 12s. 9d.; 56 lb., 13s.; 28 lb., 13s. 3d.; 14 lb., 13s. 6d.; 7 lb., 13s. 9d.; smaller parcels, up to 14s. per lb.

**SODIUM SALICYLATE (B.P.).**—The advance in the scale of prices is well maintained; makers and dealers quoting level. Home trade: powder, two tons, 2s.; one ton, 2s. 0½d.; ten cwt., 2s. 1d.; five cwt., 2s. 2d.; one cwt., 2s. 3d.; 28 lb., 2s. 4d.; 14 lb., 2s. 6d.; 7 lb., 2s. 7d.; 1 lb., 2s. 8d. per lb., with crystals 1d. per lb. extra.

**STRYCHNINE.**—Prices have been reduced as follows:—

	35 oz.	350 oz.	1,000 oz.
Crystals, per oz. ...	2s. 9½d.	2s. 9d.	2s. 8½d.
Powder, per oz. ...	2s. 8½d.	2s. 8d.	2s. 7½d.
Soluble, per oz. ...	2s. 3½d.	2s. 3d.	2s. 2½d.

1-oz. bottles free, net.

**SULPHONAL.**—The spot market is steady at the advance; to arrive is slightly dearer on current exchange rates: crystals, two cwt., 17s.; one cwt., 17s. 6d.; 56 lb., 18s.; smaller parcels, up to 19s. per lb., with powder 2d. per lb. extra.

**TARTARIC ACID (B.P. CRYSTALS).**—Makers' quoted price for home trade is maintained at last week's advance to 10½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are offering some parcels at about the same figure.

**THEOBROMINE.**—Business is poor, with competition keen: pure alkaloid, 5s. 4d. to 5s. 8d.; sodium sayleylate, 5s. 3d. to 5s. 6d. per lb. as to quantity.

**THYMOL.**—Market tends to be steadier, but business is still of small importance: synthetic, fine white, one cwt., 5s. 9d.; 56 lb., 5s. 10½d.; 28 lb., 6s.; 14 lb., 6s. 1½d. per lb.; ex ajowan seed, one cwt., 7s. 6d.; 56 lb., 7s. 7½d.; 28 lb., 7s. 9d.; 14 lb., 8s. per lb.

**VANILLIN.**—Business is fair and the market is about steady as quoted: ex guaiacol, one ton, 14s. 3d.; ten cwt., 14s. 6d.; five cwt., 14s. 9d.; three cwt., 15s.; one cwt., 15s. 3d.; 56 lb., 15s. 6d.; 28 lb., 15s. 9d.; 14 lb., 16s.; less, 16s. 3d. per lb.; ex clove oil, 16s. to 18s. per lb. as to quantity, from one ton to less than 14 lb.

### Crude Drugs, etc.

**AGAR-AGAR.**—The spot market is easier and still dull; shipment is unchanged. Spot, Kobe No. 1, 2s. 7½d.; No. 2, 2s. 4½d.; Yokohama, No. 1, 2s. 4½d. per lb.; shipment, Kobe No. 1, 2s.; No. 2, 1s. 9½d.; Yokohama No. 1, 1s. 9½d. per lb. c.i.f.

**ANTIMONY.**—Market is steady and quoted unchanged. Chinese crude, spot, £19 10s.; shipment, £18 10s. c.i.f. Chinese oxide, spot, £27; shipment, £23 c.i.f.

**ARNICA FLOWERS.**—Dealers are offering Montana on spot at 9d. per lb.

**BALSAMS.**—The demand for *Tolu* is not of much account, but values are steady at 3s. 4d. to 3s. 5d. Canada, 3s. 3d. to 3s. 4d. per lb.

**BISMUTH.**—Metal is quoted at last week's advance at 5s. per lb.

**BUCHU.**—The market is fully steady with fair sales at former rates.

**CAMPOR.**—Japanese on spot is quoted unchanged with business quiet: slabs, 2s. 3d.; flowers, 2s. 3d.; tablets, 2s. 9d. per lb. Shipment is reported dearer: slabs, 1s. 11½d.; flowers, 2s.; tablets, 2s. 5½d. per lb. c.i.f. English refined is quoted unchanged: flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ½ oz. and ¼ oz., 3s. 6d. per lb.; special prices for contracts for quantities.

**CASCARA SAGRADA.**—This market continues firm with supplies generally short. Spot, 1932 peel, 60s.; 1931 peel, 67s. 6d.; 1924 peel, 80s. per cwt. Shipment, 1932 peel, 52s. 6d. per cwt. c.i.f. in minimum car-load lots.

**CASTOREUM.**—The annual sale of the Hudson's Bay Company was held on Thursday last, when 1,233 lb. were offered, against 939 lb. in 1931, and 1,376 lb. in 1930. The quality of the consignment was fairly good all round, most of the lots containing a good percentage of well-matured pods. On the whole, the pods were rather drier than previous consignments, although practically nothing was carried over from last year's auction. The demand during the past year has been exceedingly poor, and it was anticipated there would be a slight decline in prices; values generally, however, were well maintained, especially for the better grades. About one-third of the total offerings were cleared, and the remainder were bought in at full values, the owners indicating fairly high figures for some of the parcels. Whilst the demand for the home trade was small, there were a few orders in the market for German account, with no demand from the French consumers. In comparison with the prices realised in last year's auction, there was practically no change for Pile 1 and Pile 2. On the other hand, Pile 3 was, on average, about 3s. 9d. per lb. cheaper, and Pickings about 8s. per lb. lower. The latter grade, which was, however, in small supply, was quickly cleared. We understand that since the auction several further lots of the better grades have been sold. It was announced by the auctioneer prior to the sale that no further tret allowances are to be made in future auctions. In former years, in addition to the tret allowance, there was a discount of 2½ per cent. All future offerings will be strictly net. We give below full details of the offerings and prices realised:—

—	Quality	Offered and Sold	Price 1931		Price 1932	
			s.	d.	s.	d.
YF ..	Firsts ..	46	60	0	60	0
	Seconds ..	81	50	0	—	—
	Thirds ..	140	45	0 to 46	43	0
	Pickings ..	80	45	0	38	0
	Cuttings ..	115	45	0 to 49	—	—
	Waste ..	30	9	0	10	0
EB ..	Thirds ..	24	—	—	44	0
	—	—	—	—	—	—
Canada	Seconds ..	18	55	0	50	0
	Thirds ..	30	47	0 to 48	—	—
NW ..	Firsts ..	66	—	—	60	0
	Firsts & Seconds	51	—	—	55	0 to 56
	Seconds ..	176	54	0 to 55	—	—
	Thirds ..	283	49	0 to 53	46	0
	Pickings ..	63	47	0 to 49	38	0
	—	—	—	—	—	—
MR ..	Seconds ..	22	—	—	—	—
	Thirds ..	35	—	—	—	—
	Pickings ..	28	—	—	39	0

**CLOVES.**—Business has been limited; market about steady and unchanged. Zanzibar, spot, 7½d.; shipment, January-March, 6½d. per lb. c.i.f. Madagascar, spot, 7½d. per lb.

The landings of Zanzibar in London during the week ended November 26 were 60 and the deliveries 183, leaving a stock of 1,449, against 1,094 in 1931. From January 1 to date landings of Zanzibar have been 5,416, against 3,630 in 1931, and the deliveries 5,950, against 3,533 in 1931. Landings of Madagascar for the week ended November 26 were nil and the deliveries eight, leaving a stock of 1,226, against 655 in 1931. Landings of Madagascar this year to date have been 814, against 2,290 in 1931, and the deliveries 595, against 2,466 in 1931.

**COCHINEAL.**—It is reported from Teneriffe that the crop has been damaged with the result that a substantial shortage is anticipated. Spot values have advanced with silver and black grain not available under 1s. 9d.

**COCOA BUTTER.**—Primo English is quoted from 9½d. to 10½d. per lb., as to quantity.

**COCONUT (DESICCATED).**—Slightly cheaper on a quieter spot market. Spot, fine, 26s. 9d.; medium, 25s. 9d.; shipment, halves, December-January, 25s. per cwt. c.i.f.

**COD-LIVER OIL.**—The shipment market for finest Lofoten steam-refined, non-freezing medicinal oil is firm at 96s. 6d. to 97s. 6d. per barrel. Spot is quoted about 112s. 6d. to 116s. per barrel, ex store, duty paid. Some brands may be cheaper. Stocks available at source are reported to be very low.

**DAMIANA LEAVES.**—Spot supplies are available at about 1s. per lb. for fair quantities.

**DIGITALIS LEAVES.**—The market is steady as quoted at 52s. 6d. per cwt. spot.

**ERGOT.**—Business is slow. Russian, 1s. 2d.; Portuguese, 1s. 6d.; Spanish, 1s. 8d. per lb., and less for bulk quantities.

**GELATIN.**—Dealers' prices are a point dearer this week; business fair. Spot, gold leaf, 2s. 2d.; silver leaf, 2s.; bronze leaf, 1s. 9d.; thin leaf, 1s. 8d. per lb., in cwt. lots.

**GINGER.**—Market is quoted easier, with business slow. West African, spot, 21s. 6d.; for arrival, 19s. per cwt. c.i.f.

**GUM ACACIA.**—This market is about steady on spot and some moderate business has been done. The shipment position is neglected.

**HENBANE.**—Dealers are quoting spot at about 40s. per cwt.

**HENNA LEAVES.**—Spot supplies are offering from about 30s. to 35s. per cwt. as to colour.

**HONEY.**—Business has fallen off but prices are keeping very steady, with stocks limited. Jamaican, fair to good pale, 52s.; manufacturing dark liquid, 32s. to 33s.; pale Chilean, 40s.; Californian white clover, 55s. per cwt.

**HYDRASTIS.**—Market steady but dull. Spot, 4s. 6d. to 4s. 8d.; shipment, about 3s. 10d. per lb. c.i.f.

**IPCACUANHA.**—The market has been dull and is rather easier. Matto Grosso, 5s. 3d. to 5s. 4d.; Minas, 4s. 6d. per lb.

**MENTHOL.**—The market has been dull all the week and closes easier and none too steady on spot, but the shipment position has a very steady undertone. K/S brands, spot, 18s. 3d., and less for bulk quantities; shipment, October-December, 15s. 6d.; January-March, 15s. 6d. per lb. c.i.f.

**MERCURY.**—The shipment quotation for Spanish-Italian is very steady at 35 dollars per bottle f.o.b. Continental port. Spot is at 36 dollars ex store. Reports to hand indicate the possibility of an advance in values early in the new year.

**OPIUM.**—The market has been quiet. Shipment, 1s. 2d. per unit, landed and duty paid.

**PEPPER.**—The market has been slow and values are barely maintained. Lampong, spot, 6d.; shipment, October-December, 5d.; January-March, 4½d. c.i.f. Tellicherry, spot, 6½d.; shipment, January-March, 47s. c.i.f. Aleppy, spot, 6½d.; shipment, January-March, 46s. c.i.f. White Muntok, spot, 6½d.; shipment, October-December, 5½d.; January-March, 5½d.; March-May, 5½d. per lb. c.i.f.

**PIMENTO.**—Market has been dull and is quoted easier. Spot, 3½d.; shipment, January-March, 25s. per cwt. c.i.f.

**QUASSIA CHIPS.**—Spot supplies are available at about 22s. 6d. per cwt.

**QUILLIA BARK.**—Dealers are quoting whole bark at 25s. and crushed at 35s. per cwt.

**RUBBER.**—This commodity has experienced a poor week and values are a point easier. U.K. stocks total 96,041 tons, against 97,029 tons last week and 129,805 tons a year ago. World stocks at October 31 totalled 599,981 tons, compared with 583,692 tons a year ago. Standard ribbed smoked sheet, sellers, spot, 2½d.; December, 2½d.; January, 2½d.; January-March, 2½d.; April-June, 2½d.; July-September, 2½d.; October-December, 2½d. per lb.

**SAFFRON.**—Dealers' prices are slightly easier. Spot, prime B.P., 66s. 6d.; extra B.P., 59s. 9d.; super B.P., 56s. 6d. per lb., and slightly less for bulk quantities.

**SARSAPARILLA.**—Business has been slow, market steady. Native, mixed colours, 1s. 1d. to 1s. 2d.; grey Jamaican, 1s. 9d. to 1s. 10d. per lb. as to quantity.

**SEEDS.**—ANISE.—Spanish, 53s.; Levant, 34s. per cwt. spot. No Russian. CANARY.—Spot, Mazagan, 13s. sellers; Tangier, 12s. 6d.; Kenitra, 12s. LINSEED.—Spot, Mazagan sold 13s. 9d.; Morocco quoted 13s. Plate sold at 10s. 9d., and reclaimed at 12s. CORIANDER.—Slow of sale: 1929 crop, unchanged at 15s. 6d.; wormy, 13s. 6d. to 14s. 6d.; 1932 crop quoted at 16s. CUMIN.—Malta, 33s. spot; Morocco, 32s.; 25s. 6d. c.i.f. FENUGREEK.—Morocco, spot, 12s.

CARAWAY.—Dutch on spot, 32s. 6d. to 33s., duty paid.

MUSTARD.—English, 22s. 6d. to 35s. per cwt. according to quality.

SENEGA.—Market is dull and quoted unchanged. Spot, 2s. 2d. to 2s. 3d.; shipment, about 2s. 2d. per lb. c.i.f.

SENNA.—This market has been dull all the week, but values for Alexandrian and Tinnevely pods are keeping quite steady at former rates.

U.S. imports for the period January-September totalled 1,618,200 lb., valued at \$70,500, compared with 401,900 lb. (\$27,600) in the corresponding period of 1931.

SHELLAC.—Market has been dull and is slightly easier. Spot, standard TN orange, 57s. 6d.; fine orange, 67s. 6d. to 130s.; pure button, 70s. per cwt. For delivery, TN,

December, 49s.; March, 50s. 6d.; May, 51s. 6d.; for arrival, TN, December-January, 49s. per cwt. c.i.f.

**SQUILL.**—It is reported that supplies of good white are running short and there is very little offering forward.

**TUBA ROOT.**—Spot supplies of high-testing powdered root offering at 1s. 4d. per lb.

### Essential Oils, etc.

**BUSINESS** in this market has been none too good this week, but the general tone is steady with depressed sterling influencing some items. Except for a little spot business Japanese peppermint has been dull. Ceylon citronella is steadier while the Java product is a point easier. Spanish spike is a better market.

**ALMOND.**—English sweet almond is steady from makers at 2s. 5d. in cwt. lots and up to 2s. 7d. per lb. for small parcels. Dealers quote s.a.p. at 7s. 6d. spot; dearer for shipment.

**ANISE (STAR).**—Market has remained slack and spot is easy as quoted; shipment steady but dull; spot, "Red Ship," in leads, 1s. 10½d.; in tins, 1s. 8d.; in drums, 1s. 7½d.; shipment, in leads, 1s. 9d.; in tins, 1s. 7½d.; in drums, 1s. 6½d. per lb. c.i.f.

**BERGAMOT.**—The spot market tends to cheapen owing to desire to clear holdings; now about 8s. 6d. to 8s. 9d. Shipment is unsteady and rather cheaper, being no more than 7s. 6d. per lb. c.i.f. for good quantities. It is officially stated that all old crop oil is being withdrawn, and will be used for a purpose other than perfumery.

**BOIS DE ROSE.**—Cayenne is very scarce on spot, and nominal. A very small lot is reported offered for shipment at about 11s. per lb. c.i.f. Brazilian tends to be rather dearer on spot, with nothing much below 5s. 3d. to 5s. 6d. per lb.

**CAJUPUT.**—Dealers are offering spot at about 2s. 6d. per lb., without much business resulting.

**CARAWAY.**—The market is steady with a limited business moving. Continental twice rectified, 7s. 6d. to 7s. 9d. per lb., as to quantity.

**CASSIA.**—Business has been very slow: spot, about 3s. 8½d. to 3s. 9d. per lb., as to quantity.

**CEDARWOOD.**—A steady but rather limited demand is reported. Colonial, spot, in drums, 1s. 8d.; in tins, 1s. 9½d. per lb. American, spot, 1s. 10½d. in drums; smaller quantities, up to 2s. 1d. per lb.; shipment, 1s. 8½d. per lb.

**CINNAMON LEAF.**—The market has been rather quieter, but is keeping steady. Spot, in tins, 3s. 3d. to 3s. 4d. per lb.; shipment, in drums, 2s. 4½d. per lb. c.i.f.

**CITRONELLA.**—Ceylon is a point dearer, with spot now about 2s. 2d. to 2s. 3d. per lb.; shipment, about 2s. per lb. c.i.f. Java has been dull and is a shade easier. Spot, 2s. 11½d. to 3s. 1d.; shipment, 2s. 8d. per lb. c.i.f.

**CLOVE.**—Last week's better spot figure for Madagascar is steadily held at 3s. 9d. per lb.; shipment is quoted at 3s. 2d. per lb. c.i.f. English is offering at 4s. 9d. to 5s. 4d. per lb., as to make and quantity.

**EUCALYPTUS.**—The Colonial product continues to attract a fair business, and the market is steady. Australian, 70 to 75 per cent., 1s. to 1s. 0½d.; 80 to 85 per cent., 1s. 1d. to 1s. 1½d. per lb., and less for bulk quantities. Spanish, 70 to 75 per cent., 1s. 2d. per lb.

**GERANIUM.**—The market for spot Bourbon is rather easier at about 23s., and some offers are lower; shipment is also cheaper at about 21s. 3d. per lb. c.i.f. Algerian, spot, 23s. 6d. per lb.

**GINGERGRASS.**—The market is unchanged and quiet with spot offers in the region of 6s. 6d. to 6s. 8d. per lb., as to quantity.

**JUNPER BERRY (B.P.).**—Dealers are quoting spot at about 4s. 6d. per lb.; slightly less for bulk quantities.

**LAVENDER.**—Offers at cheap prices are still on the market and some business seems to be going in that direction. Prices for best brands of new crop French are as follows: 50 to 52 per cent., 10s 6d. to 10s. 9d.; 40 to 42 per cent., 9s. 3d. to 9s. 6d.; 38 to 40 per cent., 8s. 9d. to 9s.; 35 to 38 per cent., 8s. 3d. to 8s. 6d.; 30 to 32 per cent., 7s. 6d. to 7s. 9d. per lb., delivered, and slightly less for bulk quantities.

**LEMON.**—Shipment offers of new crop Sicilian hand-pressed oil continue to vary from about 4s. 3d. to 5s. 9d. per lb. c.i.f., and even higher figures for guaranteed hand-pressed selected oil. Spot is dull, with offers from 4s. 3d. to 6s. per lb. as to brand and quantity. Californian, in

large drums, 48 cents, and in small drums, 49 cents per lb. spot.

**LEMONGRASS.**—The market has been dull, with quoted values unchanged. Spot, about 2s. 4½d. per lb.; shipment, about 2s. 2½d. per lb. c.i.f. for quantities.

**LIME.**—The position is very firm on spot, with very little material available: quoted from 36s. per lb. Shipment is nominal, with practically nothing to offer.

**MANDARIN.**—Dealers are offering spot at about 16s. 6d. per lb.; shipment is quoted at 14s. 3d. per lb. c.i.f. Business in small quantities.

**ORANGE.**—The tone of this market is not very healthy and inquiry is poor. Competition is becoming severe in some quarters. Sicilian sweet for shipment, new crop, 5s. 9d. to 6s. 9d. per lb. c.i.f. as to brand and quantity. French Colomai continues to attract attention and is offering at very keen figures, in the region of 4s. per lb. c.i.f. West Indian, about 5s. per lb. c.i.f. Californian, spot, 66 cents to 76 cents per lb., in drums, as to quantity.

**PALMAROSA.**—There is not much doing in this product. Spot is quoted at about 8s. 3d. to 8s. 6d. per lb.; shipment, about 7s. 6d. per lb. c.i.f.

**PEPPERMINT.**—There has been a moderate inquiry for spot Japanese oil, with sellers at 6s. 1½d. per lb. The shipment market has been neglected, with October-December at 6s. and January-March, 6s. per lb. c.i.f. American oil is fully steady and the shipment position is tending to harden; now quoted at 1 dollar 95 cents per lb., in drums, c.i.f.

**PETITGRAIN.**—A spot shortage is recorded. Shipment offers for December-January would work out at about 4s. 7d. per lb., duty paid and landed.

**ROSEMARY.**—The market is steady but rather dull. Spot, about 1s. 11d. to 2s. 1d. per lb. as to quantity. French, from 3s. to 3s. 3d. per lb.

**SANDALWOOD.**—Genuine East Indian is quoted steadily from 24s. to 25s. per lb. as to number of cases.

**SPEARMINT.**—Business has been poor. Spot is quoted from 7s. 9d. to 8s. per lb. as to quantity.

**SPIKE.**—This market is dearer, with good quality Spanish now very steady at 3s. 3d. to 3s. 6d. per lb., the lower price for bulk quantities; shipment is at about 3s. 3d. per lb. c.i.f.

**WORMSEED.**—Inquiry has been very quiet. Spot is quoted at about 14s. to 14s. 6d. per lb.; shipment, about 13s. per lb. c.i.f.

### Fixed Oils, etc.

The general tone in this market is steady and a moderate volume of business has been done. American turpentine and linseed (raw, naked) are steady but rather quiet.

**ACID OILS.**—Prices are barely maintained, with the market dull: coconut and/or palm kernel, 20s. 3d.; groundnut, 17s. 6d.; soya, 14s. 6d., spot. **CASTOR.**—Business has been fair and prices are keeping steady: pharmaceutical, 42s.; first pressings, 37s.; second pressings, 34s. (barrels); cases £4 per ton extra, ex mills. Hull, in not less than one ton lots. Bombay, 32s. (drums) c.i.f. **COCONUT** is fairly steady, and a moderate volume of business has been done: deodorised, 30s. 9d. (barrels), spot; Ceylon, 24s. 6d. (drums) c.i.f. **COTTON.**—Rather more business passing, with the market steady at slightly better values: deodorised, 30s.; common edible, 28s.; soapmaking, 27s.; crude, 25s. 6d. (barrels), spot. **GROUNDNUT** is keeping steady and a little more business is being done: deodorised, 35s. 6d. (barrels) spot; crude Oriental, 23s. 3d. (drums) c.i.f. **LINSEED (RAW, NAKED).**—The market is fairly steady with values about level on the week: on spot, 17s. 9d.; December, 16s. 1½d. January-April, 17s. 1½d.; May-August, 18s. 1½d. Boiled oil, 20s. 3d., spot. **OLIVE** is keeping fairly steady but business is rather limited: edible, in tins in cases, 8s.; in drums, 5s. 6d.; B.P., 4s. 3d. per gallon, in 40-gallon barrels. **PALM.**—The market is about level on the week, and a fair volume of business has been done. Lagos, 13s. 3d.; softs, 17s. 7½d.; mediums, 18s. 3d.; hards, 19s. 1½d.; bleached, 20s. 9d., spot. **PALM KERNEL.**—Market is steady but rather quiet: deodorised, 30s. 3d.; crude, 24s. 3d., spot. **RAPE** keeps steady at former rates; business moderate: refined, 33s.; crude, 31s., spot. **RESIN.**—The market is steady, business quiet: B. 13s.; D. 13s. 9d.; F/G, 14s. 6d.; N, 19s. 6d.; W/G, 22s.; W/W, 24s. 3d. per cwt., ex wharf. **SOYA.**—Business has been slow: deodorised, 29s. 3d.; crude, 21s. 3d., spot. **TURPENTINE (American).**—The market has been dull, closing steady. Total London stocks, 23,431 barrels. On spot, 61s. 9d. Wood.—Hankow in barrels is quoted at about 52s.

# Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor.

## An Employment Agency

SIR,—I wish to draw the attention of readers of the *C. & D.* to the Employment Agency of the South-West Metropolitan Branch of the Pharmaceutical Society. The very good work done by its first secretary, Mr. T. James, who has recently resigned on account of business reasons, will be carried on in future by Mrs. V. S. I. Browne, M.P.S., to whom all communications should be sent at this address. Mrs. Browne asks me to say that applications to be placed on the register can only be considered from persons resident in S.-W. London, but employers in contiguous areas are invited to use the agency. There are no charges to employers or employees.

Yours faithfully,

E. NEVILLE BROWNE,  
Honorary Secretary, S.-W. Metropolitan Branch  
of the Pharmaceutical Society.  
158 Wandle Road, Morden, Mitcham.

## Price of Cod-Liver Oil

SIR,—Our principals for cod-liver oil, Messrs. Möystad, Möller & Co. A/S, of Oslo, write with reference to the proposed duty on Norwegian cod-liver oil:—

"We wonder if this duty will have any great influence upon the sale of Norwegian oil, the quality of which is very much appreciated by British importers and buyers. As far as we can see, the result of this duty will be to make the British importers and the public pay more for the oil, and as far as possible make them take the Newfoundland oil at this higher price. We have no doubt that those who control the Newfoundland production will know how to take advantage of this, and ask prices which will be very much in the neighbourhood of those for Norwegian oil, including the duty. . . . The present production in Newfoundland is not by far sufficient to fill the requirements of the British market, and it will probably take some time before the production can be sufficiently increased, if this be at all possible."

Possibly this may be information to some buyers of the oil.—Yours faithfully,

SPARKS, WHITE & Co., LTD.,  
H. G. RAMSBOTTOM, Managing Director.

London, E.1.

## Dead Stock

SIR,—The hints on how to keep down dead stock (*C. & D.*, December 3, p.686) are timely, especially the caution to avoid overbuying. Never was it more difficult to gauge public demand. Even well-advertised and popular lines show a falling off. "Manufacturer's" advice to weed out non-sellers and return them for credit would, if largely followed, be embarrassing for the makers. The total bulk of unsaleable proprietaries in the pharmacies of the country must be enormous. It is my own practice to return such non-sellers, but I never do it without reluctance and a feeling that I am, perhaps, making a preposterous request in asking for a credit note for goods which I have bought and failed to sell. The trouble is to know exactly when the goods have become non-sellers. You give them another chance, hoping that the demand may revive, and suddenly you find that they are shop-soiled, and fit only for the dustbin. The only way is to go through stock every three months or so, harden your heart, and return all lines that have not registered a sale since the last weeding out. You can quickly reorder one or two should a demand for them arise. There is real need for a kind of clearing house for patents, where chemists could send their surplus stocks for exchange and redistribution. A more difficult problem is the disposal of unwanted medicaments. A patient hands in a prescription for some drug or combination of drugs issued

by a particular firm under a registered trade mark. Very likely you have the same stuff in stock under its B.P. name, but that won't do. You order it specially; the prescription is repeated; and you get in a small stock so that there will be no delay in supplying. Then, without warning, the patient tires of the medicine, leaves the neighbourhood—or dies. I should have no scruples in returning these redundant drugs and chemicals to the manufacturers, but they will have none of them: they are dead stock. Every dispensing chemist in the land probably has a cupboardful. I wish they could be served up to prescribers in their Christmas puddings!—Yours faithfully,

BERNARD W. GILL.

Nottingham.

## Publicity Scheme for Pharmacy

SIR,—The proposed scheme of publicity for pharmacy is attracting a good deal of attention, and one contributor to your columns, writing on "Pitfalls of Publicity" (*C. & D.*, November 26, p. 637), says that the question to be answered is "What is the precise aim of this advertising?" Presumably this question can be answered briefly by stating that the idea is to advertise our qualification—in fact, this is the only difference between the chemist and the ordinary shopkeeper which there is to advertise. Primarily our qualification is granted to enable us to keep open shop for the retail sale of certain scheduled poisons; it follows that as a large number of medical prescriptions contain one of these poisons it is the chemist's business to compound and dispense them in an open shop. Again, from this we are eligible to enter into the contract for the supply of N.H.I. medicine. These things could be drawn on to form a basis for the advertisements to show the advantage of dealing with the qualified man, the man who has had to acquire a knowledge of the drugs he supplies, instead of with unqualified traders. The figures given of the amounts expended on nationally advertised proprietaries show what large sums the manufacturers consider necessary to keep their products before the public; but many of these proprietaries can be obtained at all kinds of shops as well as those of chemists. If pharmacists commence a publicity campaign it will be necessary to have some scheme whereby the pharmacy of the qualified chemist will be identified with it; otherwise it would be useless.

Faithfully yours,

IDENTIFY (5/12).

## Where Chemists Lag

SIR,—Recently I sent to a dental surgeon a plate to have one tooth replaced. The fee asked and paid for this operation was 10s. Knowing the dentist well, I suggested that there must have been some error in the price, and was promptly told that on the contrary I, as a chemist, was being charged on a modified scale. We all know the actual value of artificial teeth and are prepared to pay reasonably for skilled labour; and my friend informed me that he had three hours' work in fixing the tooth to the plate. Not being a dentist I could not debate the point. Another incident which came to my notice recently was that a doctor whose regular fee for a visit is 5s. had three vaccinations in the same house at the same time; his fee was 15s. An optician, who is also a chemist, told me the other day that pharmacy had not a look in with optics. Under the N.H.I. Act, through friendly societies, he was paid 5s. for every sight testing he carried out. These professions place an intrinsic value on their qualifications, and the public are left to pay the price. I suggest that chemists very seriously lag behind, both in their charges for purely professional work and in their loyalty to the profession as a whole. The *C. & D.* has valiantly

pleaded, from time to time, for a forward movement in these directions; and conditions to-day are so strenuous that better incomes for chemists and druggists have become vital. I agree that to raise prices of many commodities which can be got elsewhere than from chemists would be injudicious; but I feel strongly that the time is ripe for bettering the rank-and-file conditions in pharmacy. This appeal is written in the hope that it may help to stimulate private chemists and company chemists to come together and formulate a higher scale for purely professional work such as dispensing.

Yours truly,

COMMON SENSE (6/12).

### Variety Gone Mad

SIR,—I have just received a showcard of an English face powder made by a firm of repute. There are no less than fifteen shades shown on this card. If I carry only  $\frac{1}{12}$  doz. of each size in each shade, it means  $2\frac{1}{2}$  doz. of this one powder in stock—and there are dozens of others. If I display the card someone is sure to want the colour I have not got, and so the card has gone into the dustbin. Is it not time that manufacturers stopped this mad race?—Yours faithfully,

VARIETY PHARMACIST (3/12).

## Legal Queries

*Curious (2/11).*—In order to comply with the requirements of the Sale of Poisons (Ireland) Act, 1870, the article must be labelled "Poison," e.g., "As this mixture contains a small quantity of a preparation of opium it must be labelled Poison."

*U. D. C. (27/10).*—In an indenture of apprenticeship there is no mention of any remuneration for the apprentice, but he is paid small amounts as pocket money. Is he liable to be insured under the National Health and Unemployment Insurance schemes? [It depends entirely upon the real nature of the "pocket money." If it is, in fact, a money payment made at fairly regular intervals which bears some relation to his services, he must be insured under both schemes. The absence of any reference to remuneration in the indentures would make no difference. In a case of doubt, the question should be referred to the authorities.]

*R. R. L. (20/10).*—Would a trade mark that has been registered in Class 3 as for a preparation for external application have to be re-registered in that class if it is to be used for medicines to be taken internally and for fumigants? [The trade mark may, of course, be used in connection with the other goods mentioned; but if the mark is to be protected it must be registered again, assuming that in the original application its use was limited to preparations for external application. On the other hand, if the present registration is not limited in that way, the trade mark can be used without any further formalities in respect of all goods in Class 3, which covers medicines for internal use and medical fumigants. If a second application has to be filed, the two marks will have to be "associated"; that is to say they must always belong to the same proprietor.]

*G. W. T. (14/10)* has been appointed manager of a branch shop that has just been opened. He is to receive a salary and one-third of the net profits of the branch. The cost price of the fixtures and fittings is to be spread over a period and deducted, by instalments, from the profits of the branch before arriving at the net profits. Seeing that this will diminish "G. W. T.'s" share of the profits, will he be entitled to a proportion of the price received for the fixtures and fittings in the event of their being sold? If not, is it correct to deduct the price of the fixtures and fittings from the profits in the way described? [Since "G. W. T." has agreed to accept remuneration for his services upon the basis mentioned, we do not consider that he would have any claim to part of the price realised upon the sale of the fixtures and fittings. Nor, in our view, is the arrangement inequitable in principle.]

## Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

*E. S. C. (5/38).*—COLOURING ELECTRIC LIGHT BULBS.—Electric lamp varnishes are generally solutions of spirit soluble aniline dyes in white hard spirit varnish.

*F. S. (2/38).*—SOLID DENTIFRICE.—Dental preparations of this nature may be prepared by dissolving soap, preferably that made with soda lye, in a mixture of glycerin and water with the aid of heat. Any tooth powder may then be incorporated until the whole is a stiff mass. This is dried on trays, and when no more shrinkage occurs it is cut into blocks, which are stamped out with a machine. The percentage of flavour is always higher in these products owing to the quantity of soap present. It should not be less than 2 per cent. For large scale production it is preferable to work very much on the lines of preparing milled toilet soap. The powders are added to finest neutral soap chips, the whole damped and milled three times. The flavour is then added and the whole milled again. The strips are passed through a plodder and stamped into suitable shapes in a press.

*A. B. W. (17/38).*—THEATRICAL COLD CREAM.—This type of cold cream is generally distinct from the ordinary preparation. Lard forms a cheap base, and is sometimes supplemented by additions of cocoa butter, spermaceti or ceresin:—

A		B	
Benzoated lard	.. 1,000 gm.	Lard	.. 800 gm.
Geranium oil—		Cocoa butter	.. 200 gm.
Bourbon	.. 5 c.c.	Lavender oil—	
		French	.. 5 c.c.

Grease paint remover is employed in the form of short sticks, and consists principally of cocoa butter. Other types are made as follows:—

Ceresin	.. .. 375 gm.
Soft paraffin—white	.. .. 620 gm.
Verbena oil	.. .. 3 c.c.
Olibanum R.	.. .. 2 c.c.

Melt the fats, cool, add the perfumes and mould. Soft kinds can be made from:—

White beeswax	.. .. 50 gm.
Paraffin liquid	.. .. .860—150 c.c.
Soft paraffin—white	.. .. 800 gm.
Benzyl acetate	.. .. 1 c.c.
Neroli oil	.. .. 2 c.c.

*C. S. H. (2/108).*—STAINING OF CELLULOID.—A solution of a coal-tar dye in alcohol is one of the recognised methods, but as this does not appear to have been successful we suggest you try one of the following:—(1) Dip the celluloid in a weak solution of soda, then in dilute silver nitrate solution, allowing it to dry in daylight; or (2) varnish with a solution of celluloid in amyl acetate, acetone and alcohol which has been coloured black with a spirit-soluble dye.

## Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," December 15, 1882

### The Latin of the Preliminary Examination

No work could have been chosen the study of which was less adapted to the future occupations of the chemist than the "Commentary on the Gallic War." . . . The slight difference between the English and Scottish Boards has issued in the recommendation of the first canto of the "Æneid" in addition to the first book, "De Bello Gallico." There are many cogent reasons for congratulating the Council and pharmacy on this step. . . . Would that the Council had had the inspiration to have selected the Sixth Book of Virgil for our apprentices!

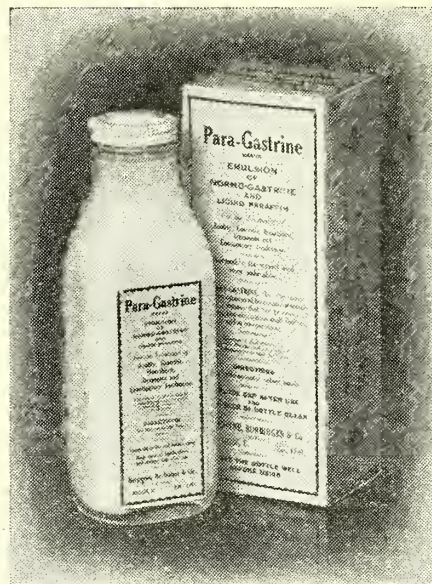
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 Hyoscyamine • Jalap Resin • Leptandrin \_\_\_\_\_  
 Morphine • Opium • Podophyllin Resin \_\_\_\_\_  
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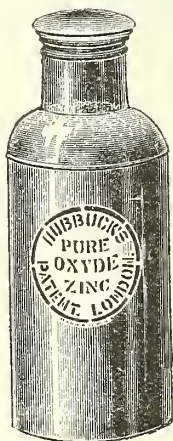
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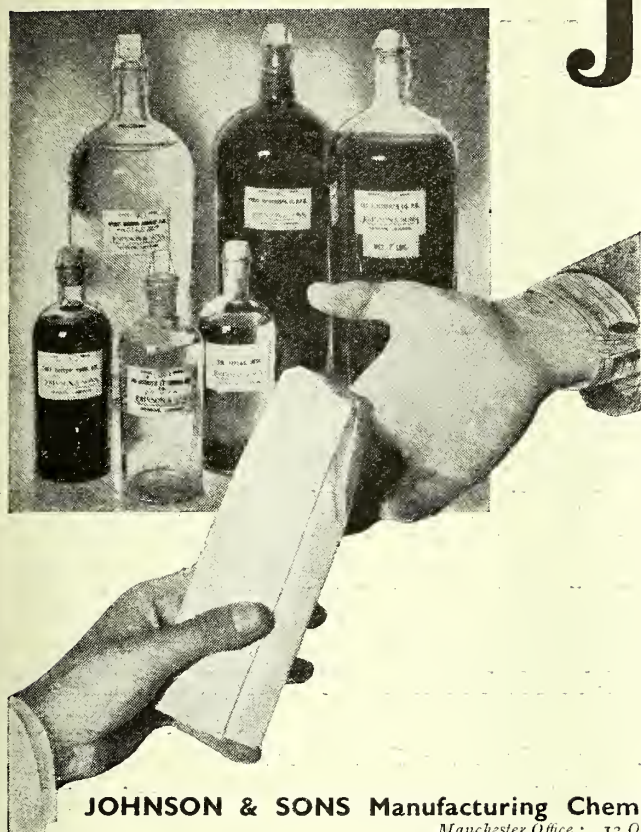
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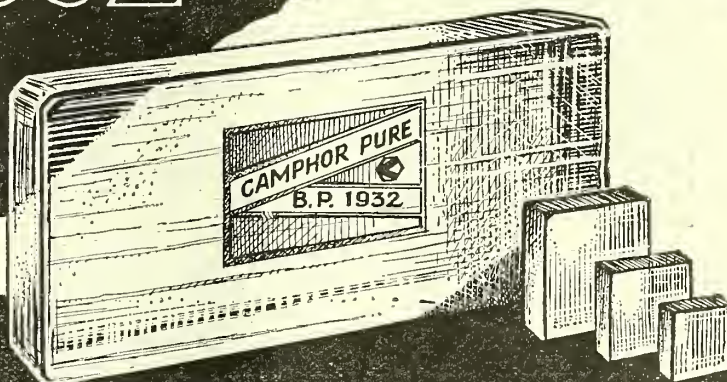
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# LOZENGES PASTILLES TABLETS

LICORICE & MENTHOL PELLETS

## ERNEST JACKSON & CO. LTD

CREDITON DEVON

*Telephone : Crediton 10.*

*Telegrams : Jackson, Crediton*

London Office: Plantain Place, Crosby Row, Poro, S.E.1.

Telephone: Hop 2663

# Paraffinum Liquidum

**B.P.**

**ALL GRADES  
SAMPLES & PRICES**

On application to —

# STERNS LTD

16 Finsbury Square London E.C.2

WHOLESALE ONLY

*Bleached  
White  
B.P.*

# BEE SWAX

*Refined  
Yellow  
B.P.*

**POTH, HILLE & CO., LTD.**

6 Lloyd's Avenue, London, E.C.3.

*Works at Stratford, E.*

# Have you had your SCOTT'S DISPLAY yet?



*Blue and white with life coloured photographs—an outstanding screen.*

This season's Scott's Emulsion show material is outstandingly bold—a real sales aid in every sense. The centre piece is a three-sided screen as illustrated above. The pictures are coloured reproductions of actual photographs used in Scott's Emulsion press advertisements—a triumph of the printer's art.

In addition, there is a set of neat carton crownners,

and an ample supply of dummy cartons, sufficient for a complete shelf display.

A postcard with your label attached is sufficient—your parcel will arrive, carriage paid, by return or at any time you like to specify.

Write now and make this winter a record season for SCOTT'S—the Chemist's winter profit-maker.

Address : Display Dept., MESSRS. SCOTT & BOWNE, LTD., 10 Stonecutter St., London, E.C.4.

## Send P.C. for FREE Parcel—NOW!

# EPHEDROL

REGD.



Simply insert the nozzle in the nostril, throw the head back and "sniff."

### Prices :

Stamped—

3/- RETAIL, 25/- per doz.

3 dozen - 24/- per doz.

Unstamped—

3/- RETAIL, 20/- per doz.

3 dozen - 19/- per doz.

Bonus of 1 to every dozen.

Carriage paid on 3 dozen with 3 bonus.

Good Showcards

Nothing else  
like it for  
removing Colds  
and Catarrh

*Better than a Spray*

Leading Laryngologists have endorsed 'Ephedrol' (in its patent nasal bottle) as better, cleaner and more effective than atomiser, spray or douche. It can be recommended to your clientele with confidence in its effectiveness.



REGD TRADE MARK

**CLAY & ABRAHAM LTD.**

**87 BOLD STREET, LIVERPOOL**

Telegrams : "ONE," LIVERPOOL. Established 1813

Obtainable from any Wholesaler

CE14a

# METHYLATED SPIRITS

*and*

# FINISH

FINEST OBTAINABLE

PROMPT DELIVERIES

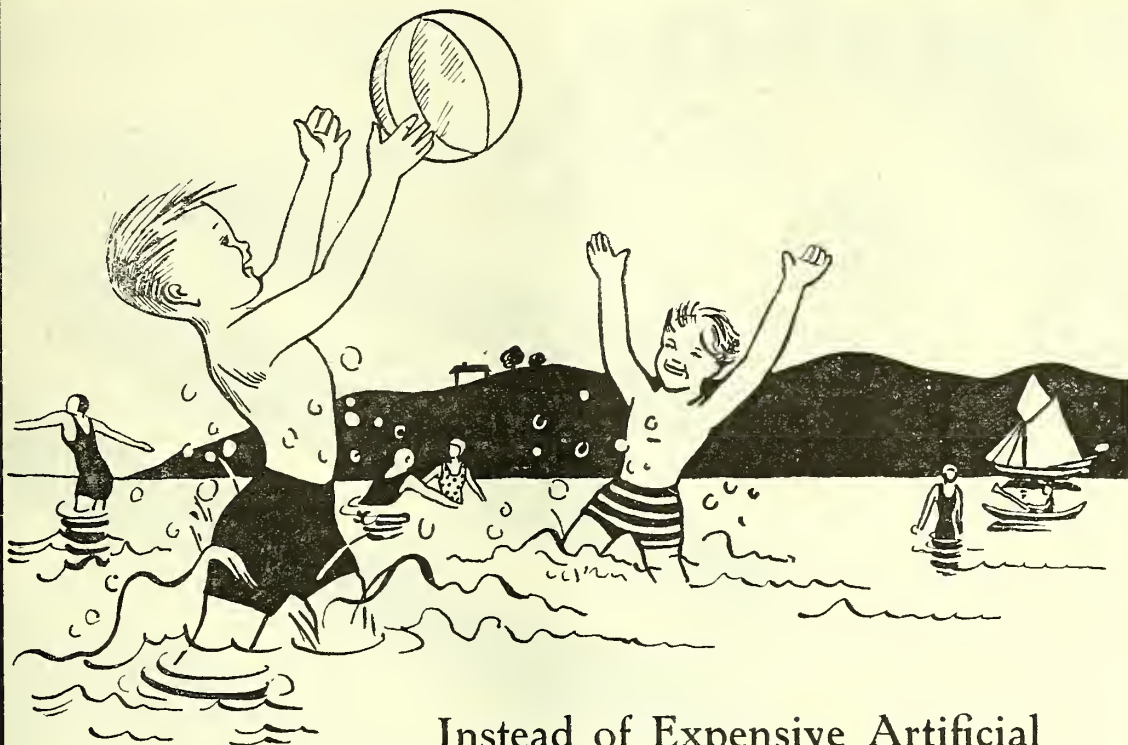


## J. M. Mills Ltd

**BROOKFIELD DISTILLERY  
STOCKPORT**

Telephone: Stockport 2396

Telegrams: "Phone, Antline"



### Instead of Expensive Artificial Foods use Norwegian Cod-Liver Oil.

The foundations of a strong constitution are laid in infancy. Proper nourishment during this period is therefore of vital importance. The body must be supplied with materials for ensuring vigorous health, sound bones and strong teeth.

The vitamins are essential.

Vitamin A protects the delicate tissues of the body against infection by microbes. It builds up healthy strength and a sound constitution. Vitamin D prevents rickets by ensuring the formation of strong bones. It will also cure rickets. It makes the teeth strong and lessens the danger of decay.

These vitamins occur most abundantly in Norwegian Cod-Liver Oil.



So highly do medical scientists value Norwegian cod-liver oil that they have called it "indispensable to mankind".

## Norwegian Cod-Liver Oil

IS KNOWN ALL OVER THE WORLD FOR ITS HIGH QUALITY

# W.B. DICK & CO. LTD



BY APPOINTMENT TO H.M. THE KING

**PARAFFINUM LIQUIDUM B.P.**  
ALL SPECIFIC GRAVITIES GUARANTEED TO REMAIN BRIGHT AT 0°C

**B.P. WHITE & YELLOW PETROLEUM JELLIES**

**WHITE AND HALF WHITE OILS**

SEND FOR SAMPLES AND QUOTATIONS (WHOLESALE ONLY)

26 GROSVENOR GARDENS, LONDON, S.W.1  
Telephone - "Dicotto, Phone, S.W.1"  
Telegrams - "Sloane 3461 (7 lines)"  
GLASGOW, LIVERPOOL, NEWCASTLE,  
CARDIFF AND NEW YORK.

"Mulum in Parvo."

## "VAPOFORM" Disinfectant

Regd.

For disinfection of  
Rooms,  
Confined Spaces, &c.

for HOME  
and HOSPITAL

Has no injurious effects  
whatever on Furniture,  
Utensils, &c.

Small size, capable of disinfecting  
1000 to 2000 cubic ft., 8/6 per doz.

Large size, capable of disinfecting  
3000 to 6000 cubic ft., 13/- per doz.

Sole Proprietors—

**HARKNESS, BEAUMONT & CO., LTD.**  
Wholesale Chemists, EDINBURGH.

## OILS

**OLIVE OIL  
CREAM SUBLIME  
& B.P. QUALITIES  
COTTONSEED &  
OTHER B.P. OILS**

DISTILLED WATER in perfect condition  
from our own stills. Large plant providing  
quantities for immediate despatch to all parts  
We solicit your enquiries  
for drysalteries generally

**FRANCIS F. FOX & CO LTD**  
BRISTOL & BIRMINGHAM.  
ESTABLISHED OVER 100 YEARS

Send your enquiries to the actual makers for—

**SHEEP DIPS, DISINFECTING FLUIDS & POWDERS**  
**SOAPS** (Hard, Soft, Liquid) **LYSOLS, FUMIGATORS, SULPHUR CANDLES**  
and the well-known **"KILLGERM" DISINFECTANT**

Keen Prices — Prompt Deliveries

**The Killgerm Company, CLECKHEATON, YORKSHIRE.** Tel: Cleckheaton 148

**SAFE - SURE - PROFITABLE****GENASPRIN**  
THE SAFE  
BRAND OF ASPIRIN**WULFING BRAND**  
**FORMAMINT****SANATOGEN**  
THE TRUE TONIC FOOD**GENOZO**  
BRAND  
TOOTHPASTE*Satisfy your customers  
— Send up your sales.*

These four lines are household words. They are consistently advertised and always live up to their fine reputation. Because they always do what is claimed for them, doctors prescribe them. A high percentage of profits can be yours if you stock, display and recommend "the big four" (especially if you buy on direct cash terms). ★

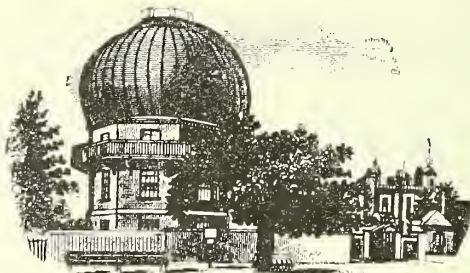


If you have not yet taken advantage of these special terms, may we suggest that you write to us for full particulars which will be forwarded you by return.

**GENATOSAN****LIMITED***Loughborough,**Leicestershire.*

Telephone: Loughborough 292.

Telegrams: "Genatosan, Loughborough."



GREENWICH OBSERVATORY & CLOCK  
TRADE MARK

**SEIDLITZ POWDERS**

LEMON or ORANGE FLAVOURED and SWEETENED

**PLAIN SEIDLITZ POWDERS**

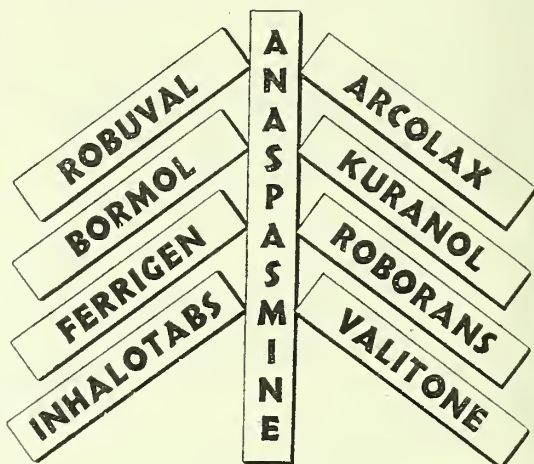
**B. P., E. S. & D. S.**

In Blue Cellophane Envelopes,  
with customer's name and address.

Prices and Bonus Terms from  
**MILNER & COKE, LTD.**

Incorporating  
**The GREENWICH LEMONADE CO.**  
11 JOHN PENN STREET, LONDON, S.E.13

PREScribed LINES



Manufactured and Advertised  
to the Medical Profession by

**ROBERTS and CO.**

Pharmaciens to H.M. The King

76 New Bond Street, London, W.1

and at Paris

'Phone : Mayfair 4173

'Grams : Patilond, London

**3/-**  
EACH

PATENT  
APPLIED FOR



**K-D** Your medicines, delicate instruments, tools, cigarettes, etc., all can be taken care of by using K-D.

- K-D** Keeps salt and sugar dry
- K-D** Keeps biscuits crisp
- K-D** Keeps jam free from mould
- K-D** Keeps rust from your wireless set, piano, clock, etc., etc.
- K-D** For wardrobe & linen cupboard
- K-D** Detects and corrects damp beds

**K-D Lasts for Years !**

Obtainable from ALL WHOLESALERS or from :  
Sole Distributors :—**ELMESAN (London) LTD.**  
66, Victoria Street, London, S.W.1

**CALENDARS,**

IF

**ATTRACTIVE,**

**YOUR CUSTOMERS  
KEEP & APPRECIATE.**

SEND FOR  
A SPECIMEN,  
INTERESTING  
AND  
INEXPENSIVE.

**JAMES TOWNSEND & SONS,**  
Chemists' Printers, **EXETER.**

London Office: 54, FARRINGDON STREET. E.C. 4

**EMPIRE MADE**

'Ex-Lax' is now made at Montreal, Canada, and packed at Slough.

**NEW PACK**

Empire-made 'Ex-Lax' will shortly appear in a striking new pack of outstanding display value.

**CONSISTENT ADVERTISING**

Compelling advertisements appear every few days in the London Evening Papers.

**MORE HOME SAMPLING**

This effective advertising distribution is being extended.

# Have you ordered your DOUBLE BONUS PARCEL of **EX-LAX**<sup>BRAND</sup> CHOCOLATE LAXATIVE?

Particulars of the Double Bonus have already been sent to chemists throughout Great Britain. If you have not received the circular letter announcing this offer write at once to Ex-Lax Ltd., Slough, Bucks,

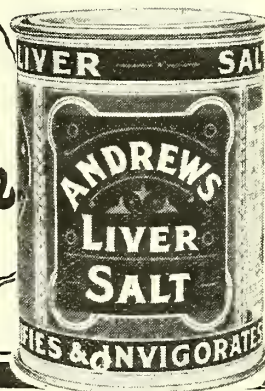
to avoid missing this opportunity of securing a **double** bonus parcel. If your copy of the circular reached you safely, but has been put aside, look out and post the special order card now before it is too late.

**DOUBLE BONUS OFFER CLOSES ON  
DEC. 17. POST YOUR ORDER TO-DAY**

**I** AM interested in ready sellers which will add to my profits. Please send me details of your best lines so that I can judge whether they will appeal to my customers.

Cut out this announcement, pin it to your billhead and post to SHADFORTH PRESCRIPTION SERVICE, LTD., 63 GROVE ROAD, BOW, E.3. You will receive by return interesting details and terms of the famous, nationally advertised, range of Shadforth Prescriptions. They are Prescriptions that PAY.

*The Saline  
with the  
largest sale*



## Antiphlogistine

*Brand Dressing*

HUMAN & VETERINARY  
MADE IN ENGLAND

**Write for Special Quantity Terms**

**The Denver Chemical Mfg. Co., London, E.3**

Awarded Certificate by  
The Institute of Hygiene  
for Purity—Quality—Merit

# LOCARNO

## MEDICATED TOILET ROLL

Costs 3s



BRITISH  
MADE

Sells 6s

Sales  
restricted  
to Chemists

You are sure of  
repeat orders  
by selling the  
"LOCARNO"

Contains 650 sheets of pure  
white Sulphite Paper.  
Free delivery. Packed in cartons  
Free Sample Roll on application  
Each Roll 12 oz.

Sole Manufacturers:  
**J. RUTHERFORD & Co. L<sup>td</sup>**  
VICTORIA PAPER MILLS  
VICTORIA RD. HOLLOWAY, LONDON, N.7

CONTRACTORS TO H.M. GOVERNMENT

**Best sellers**  
The public is asking  
for **ZEAL**

**CLINICAL  
THERMOMETERS**  
because they are:-  
**GUARANTEED TO  
STAY ACCURATE  
CONSISTENTLY  
ADVERTISED**

Made by  
**ZEAL**

—the name the  
public knows.

**G. H. ZEAL, LTD.,**  
75 & 77, St. John St., London, E.C.1.



## British Optical Institute

(COLLEGE OF OPTICS)

COMPLETE TRAINING for the SIGHT-TESTING OPTICIAN

Full-time and Part-time Courses, under the personal direction of the Principal, assisted by Mr. G. W. Colebrook, F.B.O.A. (Hons.), F.S.M.C. (Master's prizeman), and Mr. E. W. Woodruff, B.Sc., F.B.O.A. (Hons.).

A Special Concession recently granted to this College by the Council of the B.O.A. has made it possible for candidates to prepare for the F.B.O.A. examination by means of a part-time Course.

For full particulars apply to the Principal:

**Dr. MAX COQUE, B.Sc.**, Fern Lodge, 20a Grove Road,  
Brixton, S.W.9.  
Telephone: Reliance 3677.

## SANITARY TOWELS

made  
by

The ORIGINAL and Most Popular  
The "K." All wool in knitted cover,  
very soft.  
The "CELTEX." Made of Cellulose  
for easy disposal.

FROM YOUR WHOLESALE HOUSE, PLEASE

# SOUTHALLS

# AN OLD FAVOURITE SHAPE



# IN A NEW PACK

# AND THE REASON WHY



INGRAM'S "Plunket" teat is an old favourite shape and when we fitted the Patent Green Band to it and included it in the "Agrippa" Series it was given the title "No. 4" "Ball Top."

Owing to the many requests from our clients, we have decided to put the "Plunket" up under its original name and in a special display box.

The shape will still be included in our "Agrippa" Series as "No. 4," but customers requiring it in the new pack are kindly asked to mark the order "Plunket."

---

Each teat in a separate hygienic carton  
*Obtainable from all Wholesale Houses*

---

## J. G. INGRAM & SON LTD.

THE LONDON INDIA RUBBER WORKS  
HACKNEY WICK - - - LONDON, E.9

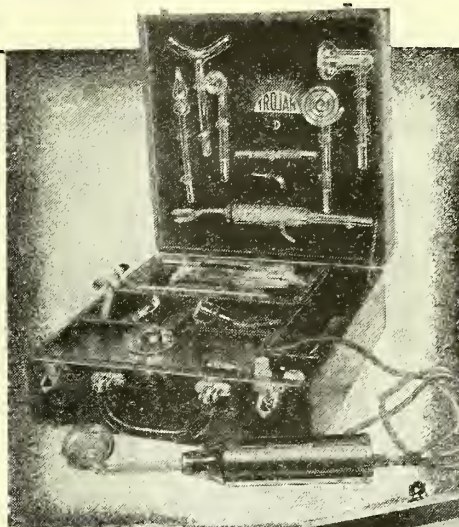


# Every Chemist knows . . . .

. . . that Health is the easiest thing in the World to sell . . . everybody wants it.

Here is a good opportunity to increase your sales. Sell Health, through the popular TROJAN High Frequency Electrical Outfits and TROJAN Electric Inhaler Sets.

The demand for TROJAN Electric Inhaler Sets is rapidly increasing—hundreds of them are being sold every week by Chemists all over the Country.

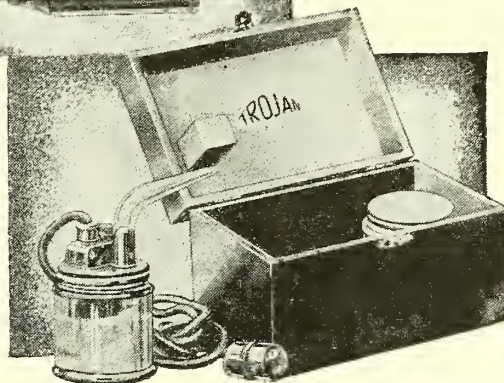


THE  
TROJAN  
H.F.  
OUTFIT.

*If you do not stock these two quick-selling TROJAN Lines you are missing valuable business. Write us to-night for full details and prices.*

**JOHN SHAW & SONS  
WOLVERHAMPTON, LTD.**  
(Established 1795)

Head Office & Works: **WOLVERHAMPTON**  
Telephone: 21212. Telegrams: "Shaw, Wolverhampton."  
LONDON BRANCH: 29 Shoe Lane, E.C.4



THE TROJAN  
ELECTRIC  
INHALER.



Open.

## THE "CHARLOTTE" (Regd.) HOT-WATER BOTTLE COVER

"Its novelty consists in the cover which encloses the stopper completely."—  
*British Journal of Tuberculosis.*  
"Accidents certainly happen with some frequency through the employment of uncovered bottles."—*The Lancet*

THE ONLY SATISFACTORY HOT-WATER BOTTLE COVER ON THE MARKET.

	Best Quality. (Velour)	2nd Quality. (Plushette)		Best Quality. (Velour)	2nd Quality. (Plushette)
8×6 in.	14/-	12/- doz.	12×8 in.	18/-	16/- doz.
10×6 in.	15/-	13/- "	12×10 in.	21/-	18/9 "
10×8 in.	17/-	15/- "	To fit the moulded hot-water bottle, size 11½"×8"		
			Velour 29/- doz. Plushette 17/- doz.		

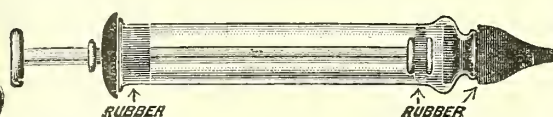
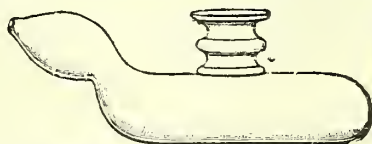
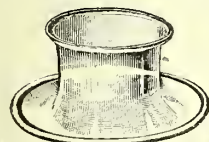
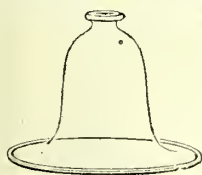
Supplied in pink, blue, peach and grey.

MANUFACTURED ONLY BY

**C. J. HEWLETT & SON, Ltd., 35/42 Charlotte St., London, E.C.2**



Closed.



## EXPORTERS IN PARTICULAR

Will Welcome our Lively **GLASS BLOWING DEPARTMENT**

Everything made to Standard and often Below Foreign Prices

**M. J. FECHER, Ltd., Cuckoo House, Dod St., London, E.14**



## WE OFFER A BOTTLE CAPPING

GIVING THE FOLLOWING  
ADVANTAGES:—

*Speed of operation—  
Perfection of finish—  
Minimum waste.*

IN STANDARD COLOURS:  
BLACK, RED, WHITE or BLUE

*Special colours and shades to order.*

PRICE:

12/- to 15/- per gallon  
according to quantity.

*May we give you the pleasure of testing it?  
Write for sample C.S.1 to:—*

**DOPE DEPARTMENT,**  
British Celanese Limited, Celanese House,  
Hanover Square, London, W.1.

# A household word

## SECCOTINE

REGD.

**—and you can  
sell it to EVERY home**

Ask customers which adhesive they know best—and ten to one they will say "Seccotine." Why? Because as far back as nearly fifty years ago, Seccotine was well known. To-day it is world famous. It deserves to be, too! It is the strongest adhesive in the world; it has no substitutes.

*Sell Seccotine and you sell the best and make good profits, too!*

In tubes 4½d., 6d. and 9d.

Seccotine does not deteriorate in stock.

**MADE BY BRITISH WORKPEOPLE**

**WATCH OUR NATIONAL ADVERTISING CAMPAIGN**

*Ask us for free booklets, cutouts, etc.*

Dept. C.D., McCaw, Stevenson & Orr, Ltd., Belfast.

## There is only ONE SECCOTINE

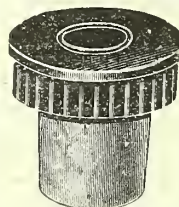
## Buy British Glassware

GRADUATED MEASURES—FUNNELS—  
SPIRIT LAMPS—SUPER EYE BATHS—  
HYDROMETER JARS—TEST GLASSES—  
SEDIMENT GLASSES — CUPPING  
GLASSES—MORTARS AND PESTLES—  
SUCTION GLASSES—BLUE SYRUPS—  
ETHERS—CAPPED AND SPOUTED OILS  
—URINALS *All Specials Made to Patterns.*

**FOLEY'S**

9/10 Stock Orchard Street, Caledonian Road,  
Tel.: North 3203. London, N.7. EST. 1880.  
WHOLESALE AND EXPORT ONLY

## STOPPERS AND BAKELITE SCREW CAPS



200 Varieties  
Any Colour.

A suitable Composition Stopper will enhance the selling value of your package. Let us fit your Bottles and quote you.



**T. WEBSTER & Co., Ltd.**

Diamline House, Middle Lane, Hornsey, LONDON, N.8

Telephone: Mountview 0952

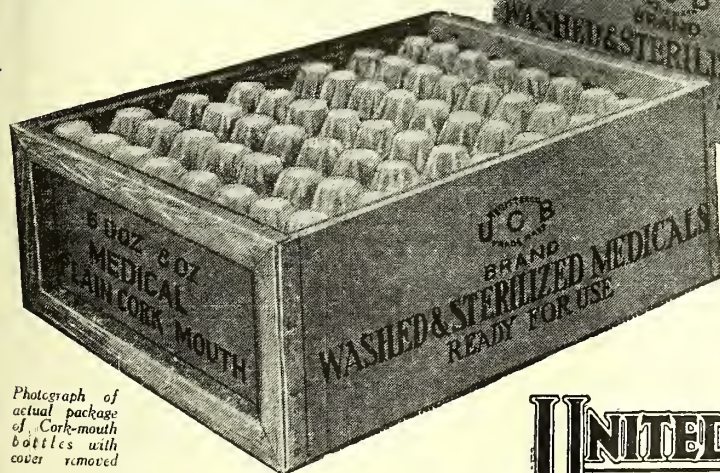
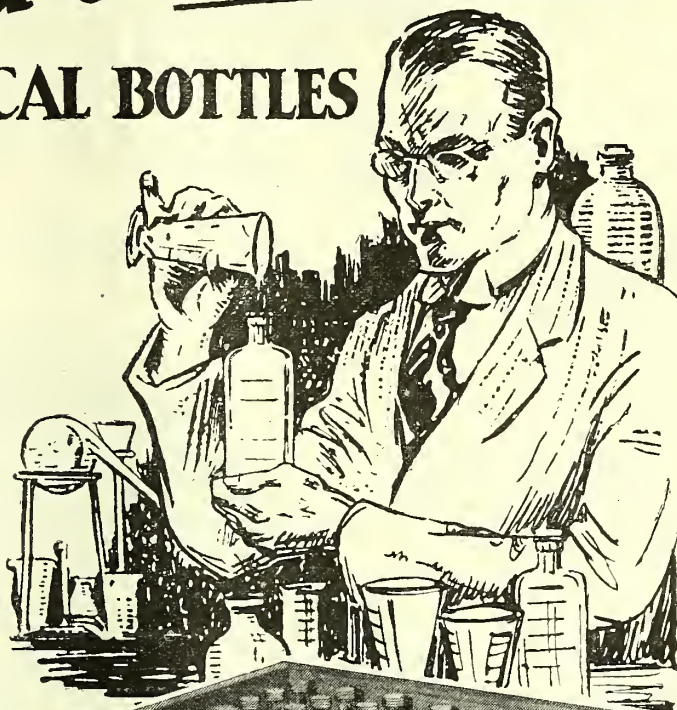
# U.G.B. Washed & Sterilised MEDICAL BOTTLES

**M**ODERN annealing ovens deliver bottles bright and sterile. Packed without special treatment a film will gradually appear on the surface of the glass. Hence the necessity of our scientific sterilizing process passing bottles through boiling distilled water and drying in super-heated filtered air before packing in dustproof cartons. How vastly superior to many competitive makes of so-called "washed and papered" bottles which are generally only rinsed in none too clean ordinary water.

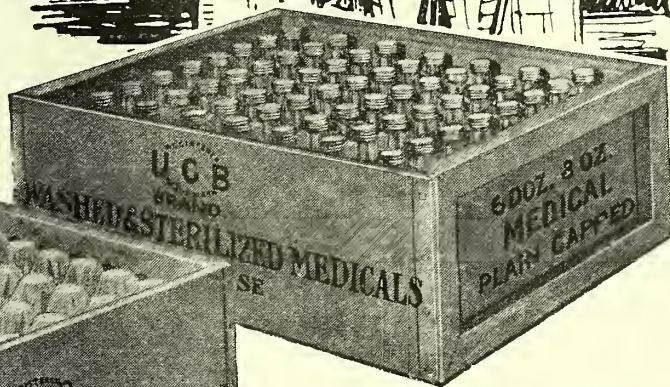
OUR SALES of this UNIQUE SERVICE STEADILY INCREASE from year to year.

## ANNOUNCEMENT

In addition to the white enamelled Aluminium Screw Cap service, the full range of sizes complete with an attractive design of BLACK KORKALITE MOULDED CAP will shortly be available.



Photograph of actual package of Cork-mouth bottles with cover removed



Photograph of actual package of Screw-cap bottles with cover removed

## UNITED GLASS BOTTLE

MANUFACTURERS • LIMITED

The largest manufacturers of Glass Bottles in Europe.

Head Offices:

40-43 NORFOLK ST., STRAND, LONDON, W.C.2.

Telephone:

Temple Bar 6680 (10 lines).

Telegrams:

"Unglaboman, Estrand, London."

Works at  
Charlton, Kent  
and  
St. Helens, Lancs.

# Pharmal

## HOT WATER BOTTLES

### Mass Sellers!

FIXED  
RETAIL  
PRICE

**2/6**

each



Sell the "Pharmal"—the hot water bottle with a name and a reputation—and consolidate your customers' goodwill.

Made of the finest quality rubber, every inch of which is reinforced for greater strength. Has an "easy-fill" neck and non-leak stopper. Guaranteed seal attached to every bottle.

In Red, Green, Blue, Pink, also Red and Blue Marble, Blue and Green Marble, Green and Red Marble and Jazz.

The opportunity is before you—order now from any of the leading wholesale houses.

**The Leyland & Birmingham Rubber Co., Ltd.,**  
Grand Buildings, Trafalgar Square, London, W.C.2.

# BOOTS PRODUCTS IN MODERN THERAPY

## ACRIFLAVINE—BOOTS

One of the most potent of modern antiseptics, physiologically pure and extremely soluble in water, ACRIFLAVINE (BOOTS) kills organisms in a concentration of 1 in 100,000.

## BISMOSTAB—BOOTS

A suspension of specially prepared, finely divided, pure Bismuth metal in 5% Glucose solution is non-irritant, highly concentrated, sterile and ready for use.

CHLORAMINE-T—(BOOTS)

CHLOROFORM—(BOOTS)

EPHEDRINE COMPOUND  
(BOOTS)

GONOCOCCUS VACCINES  
(BOOTS)

HEXYL-RESORCINOL  
(BOOTS)

INSULIN—(BOOTS)

LIVER EXTRACT—(BOOTS)

MEDICINAL GLUCOSE  
(BOOTS)

PITUITARY EXTRACT  
(BOOTS)

QUINANIL—(BOOTS)

REINFORCED COD LIVER  
OIL—(BOOTS)

SULPHOSTAB ORARSAN

STABILARSAN VIULES

CHOLUMBRIN THIOSTAB

ANTI-PNEUMOCOCCUS  
SERUM—LEDERLE  
(FELTON'S SERUM)

## BOOTS PURE DRUG CO., LTD.

Manufacturing Chemists and  
Makers of Fine Chemicals

NOTTINGHAM - - - ENGLAND

TELEPHONE :  
NOTTINGHAM 45501

TELEGRAMS :  
"DRUG, NOTTINGHAM"



# THE BRITISH DRUG HOUSES LTD.

## NEW SHOW MATERIAL FOR RADIO-MALT

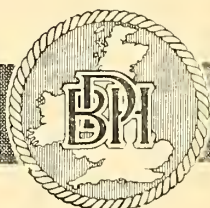
The illustration shows the new Show-stand (R.M.12), an attractively modern production in bright colours. It is of solid construction and measures 19 inches in height. A copy will be sent to any Pharmacist on request.



## IT PAYS YOU TO SELL RADIO-MALT

*Write for particulars of Bonus Terms, conditional upon exhibition of the advertising material.*

**CRAHAM ST**



**LONDON N.I.**

# THE CHEMIST AND DRUGGIST SUPPLEMENT

28 ESSEX ST.  
LONDON, W.C.2

DECEMBER 10, 1932

*This Supplement is inserted in every copy of The Chemist & Druggist.*

## THE CHEMIST AND DRUGGIST SUPPLEMENT

### ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are PREPAID, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

**BUSINESSES WANTED** and for **DISPOSAL, PREMISES TO LET, PREMISES WANTED, PARTNERSHIPS, GOODS for SALE and AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)  
**SITUATIONS OPEN**—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)  
**SITUATIONS WANTED**—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)  
**LEGAL NOTICES, TENDERS, AUCTIONS**, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines=1 inch single column). (Box No., 1/- extra.)  
**MISCELLANEOUS (Wholesalers') Section** for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)  
**EXCHANGE COLUMN** (for Retailers, etc.)—**Twopence** per word, minimum 2/- (Box No., 1/- extra.)

**THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2**

Telephone: Central 6565 (8 lines). Telegrams: "Chemicus, Strand, London."

**CLOSING FOR PRESS.** ALL ADVERTISEMENTS INTENDED FOR  
MUST REACH US FIRST POST THURSDAY MORNING.  
NOT LATER THAN

**ORRIDGE & CO.** **56 LUDGATE HILL, E.C.4**  
ESTABLISHED 1846 Telephone No.: CITY 2233  
May be CONSULTED at their Offices on MATTERS OF SALE, PURCHASE & VALUATION.

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1.—**ESSEX** (Good-class Suburb).—Good middle-class Retail Business; returns, under management, £1,720 last year; when the business was run by a principal the returns were £3,000 per annum; good profits; single-fronted shop, nicely fitted and fully stocked; new lease at about £100 per annum; valuation terms entertained; price in all about £1,250.

2.—**METROLAND** (Residential Neighbourhood).—Good-class Family Business with Kodak Agency; returns last year £1,545, increasing; good prices obtained; double-fronted shop, very nicely fitted and amply stocked; rent £200; sub-lets £202; held on lease; valuation terms entertained; ill-health sole cause of sale.

3.—**NORTH LONDON** (Good-class Suburb).—Good middle-class Retail Business with Kodak Agency, N.H.I. Dispensing, and small amount of Optics; returns this year about £2,500; scope for large increase; chartered accountant's figures; double-fronted main road shop, very well fitted and heavily stocked; rent £150; sub-let £65; held on lease; price £2,250; ill-health cause of sale.

4.—**CITY PHARMACY**.—City Retail Business with Draught trade, Soda Fountain and own Proprietaries; established 1753; returns, under management, last year £1,736; gross profit 43 per cent.; small handsomely fitted pharmacy, very well stocked; rent £200, inclusive of rates; price £1,100, which represents the value of stock and fixtures only.

5.—**SOUTH WALES**.—Good-class Country Business, easily worked, situated in market town and one of the most charming districts in the country; returns last year exceeded £1,700; double-fronted shop, well fitted and stocked; modern house; rent £40; long lease; low rates; stock and fixtures worth about £1,000; sum required for goodwill £150; genuine reason for sale.

6.—**NORTH OF ENGLAND**.—Good-class Retail Pharmacy, with little N.H.I., good D. & P., Wine Licence, Kodak Agency and Shipping connection; established over 30 years; increasing turnover, last year being £2,710; corner premises; stock and fixtures worth about £800; bungalow and garage, with large garden, available; rent of shop £120 per annum; price asked £1,200, or value of stock and fixtures and an agreed sum for goodwill.

7.—**WILLESDEN**.—General Retail Business with Kodak Agency; returns last year £1,994; usual prices obtained; new estate being built at rear of shop; estimated value of stock and

fixtures about £750; rent £100; part sub-let at £78 per annum; price £1,100, or valuation terms entertained.

8.—**SALOP**.—Very old-established Business with Wine, Spirit and Beer Off Licence; returns last year £5,655; stock and fixtures worth about £1,000; main road position; very good house; terms, valuation of stock and fixtures, plus a reasonable sum for lease and goodwill.

9.—**ESSEX COAST**.—Good middle-class Retail Business with N.H.I. and Private Dispensing; established 40 years; returns about £3,400 per annum; good prices obtained; single-fronted shop, nicely fitted in mahogany and fully stocked; estimates value of stock and fixtures £1,700; living accommodation over; price £2,500, or valuation terms entertained.

10.—**BECOTREE** (Near).—Cash Drug Store, situate in densely populated area; tremendous scope for N.H.I. Dispensing; returns last year under indifferent management, £1,018; double-fronted shop; living accommodation; price about £400; property can be acquired on mortgage.

11.—**ROMFORD** (Near).—Good middle-class Retail Business with very good Optical connection; returns going ahead every year; takings last year exceeded £2,900; double-fronted shop, nicely fitted and heavily stocked; new lease will be granted; valuation terms entertained; vendor buying a business in the North.

12.—**NORTH RIDING**.—Medium-class Retail Business with Kodak and Rexall Agencies; established 26 years; returns last year £1,432; this year will be more; net profit for income tax purposes £310; stock and fixtures estimated to be worth £790; living accommodation; rent £90; price £850, or valuation terms entertained; vendor would lower stock if required.

13.—**CENTRAL MIDLANDS**.—Cash Retail Business with N.H.I. and Kodak Agency; returns last year, under management, £1,806; good profits; stock and fixtures estimated to be worth £850; large six-roomed house; rent £47 per annum; held on lease; price £1,250 or near offer; vendor has bought another business.

14.—**HOME COUNTIES** (25 Miles Out).—Country Retail Business with Kodak Agency; returns last year £1,301; net profit £363, chartered accountant's figures; estimated value of stock and fixtures £650; rent £37; held on lease; house available if required; price £1,000, or valuation terms entertained.

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2.—SOUTH DEVON.—Sound general Family, Retail and Dispensing Business, in small market town; returns £1,200, increasing; good house and garden; excellent stock; price £950.

3.—SOUTH-EAST COAST.—Light Family Retail and Dispensing Business; in growing residential district; no immediate opposition; returns £1,850; scope for increase; handsomely-fitted pharmacy, well stocked; large house; price £1,300.

4.—DERBYSHIRE.—Old-established Business in busy town; returns average £1,350; good profits; rent £52, on lease; corner shop; well fitted and fully stocked; no near opposition; price £800.

5.—BIRMINGHAM.—Good-class Retail and Dispensing Business in pleasant suburb; main road position; present returns about £1,400; scope for increase; rent £70; large shop, with house; excellent stock; price £850.

6.—BANKS OF THAMES.—Cash Drug and Photographic Store; returns last year £1,500; good chance for qualified Chemist; present returns are down through neglect; price £100 for quick sale; stock at valuation.

7.—LONDON.—Old-established City Business, entirely under management; returns about £1,750; gross profits £734; easy hours; modern pharmacy; price £1,100, bare value of stock and fixtures.

8.—SOUTH WALES.—Good-class Country Business, easily worked, and charmingly situated in small market town; returns over £1,700, increasing; very low expenses; modern house; well-fitted shop, heavily stocked; price, simply valuation, plus £150 goodwill.

9.—LIVERPOOL.—Light Cash Suburban Business, returning under manager, £1,450; gross profit £550; splendid position on new housing estate; scope for increase; modern fitted pharmacy, well stocked; long lease; price about £700.

10.—EASTERN COUNTY.—Middle-class Light Retail, in populous district of busy town; returns about £1,650; net profit over £400; lock-up shop; low rent; on lease; price £900.

11.—DEVONPORT.—Well-established Business in thickly populated district; returns £720; neglected through illness; plenty of scope; low rent; good stock; price £375, or offer.

12.—SURREY (25 miles out).—Unopposed good-class Family and Dispensing Business in growing district; returns approach £1,250; good profits; modern house, every convenience; good stock; price £950, or offer.

13.—LONDON, N.W.—Light Retail and Dispensing Business for quick disposal, in good-class and growing district; returns £1,870; steady increase last three years; low rent; long lease; stock and fixtures worth about £750; price £1,100, or offer.

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(C2) MANCHESTER (NEAR).—Modern pharmacy and optical business, with freehold property, including exceptionally good flat above; returns for present financial year approximately £40 weekly; genuine scope for further increase; price asked for business, £1,100, plus value of freehold, upon which a substantial mortgage could, no doubt, be arranged, if desired.

(C3) WEST BROMWICH (NEAR).—Cash business with good photographic connection and N.H.I.; returns for 1931—32, £1,800; rent and rates, £67, which includes 6-roomed house with garden. This business represents a particularly good profit-earning investment and should be capable of further increase under personal proprietorship.

(C4) ISLE OF WIGHT.—Old-established retail business with living accommodation; average returns approximately £1,350 per annum; net profit, £350; rent and rates, £66 per annum; purchase price asked, £1,150, or near offer, subject to valuation of stock and fixtures at purchaser's option.

(C5) KENT (MIDDLE-CLASS RESIDENTIAL SUBURB).—Pharmacy with good living accommodation, including garden; present returns, excluding N.H.I., approximately £25 weekly; rent, £100 per annum; lease 19 years unexpired; situated in rapidly growing district; price for quick sale, £500, or offer, including stock and fixtures, estimated at £400.

(C6) YORKSHIRE.—Good class family and agricultural business, with exceptional scope for optics; established about 50 years; returns for last financial year, £1,300; rent, £32 10s. per annum; sub-let £19 10s. per annum; house available near by if required; purchase price for quick sale, £650, including stock and fixtures estimated at £460.

(C7) DEVON.—Good class family and dispensing business, recently established, for disposal owing to special circumstances; turnover for last financial year, approximately £1,200; good living accommodation, with large garden; rent, £100; lease 21 years; purchase price by negotiation; offers exceptional advantages to a private chemist with enterprise and initiative.

(C8) BLACKPOOL (NEAR).—Good family business, well suited to a private chemist with limited capital; turnover for 1931—32,

upwards of £1,150; good living accommodation; rent, £104; lease by arrangement; no near opposition; returns for current year show an increase over the corresponding period last year; price for quick sale, £550 or near offer.

(C9) CROYDON (NEAR).—Very old-established business situated in main street of busy suburb; present returns approximately £14 weekly, but the business is a very profitable one, and there should be good scope for further increase. For a quick sale, an all-in purchase price of £300 will be accepted; this figure represents considerably less than the estimated value of stock and fixtures.

(C10) LONDON, NORTH.—Drug store with small optical connection, at present doing approximately £10 weekly; rent, £75 per annum, including 5-roomed house; the business is situated in a thickly-populated working-class district, and under qualified proprietorship should offer good opportunities for increase; purchase price (all-in) £250.

(C11) BIRMINGHAM (RESIDENTIAL SUBURB).—Good dispensing and photographic business situated in busy shopping part of main road; present returns approximately £30 weekly, with good scope for further development, and for the introduction of optics, if desired; rent, £70 per annum; which includes excellent living accommodation; purchase price asked £850 (offers considered).

(C12) BIRMINGHAM.—Quick cash business situated on busy main suburban road; established 8 years; turnover for last financial year, £1,335; rent, £70; sub-let, £72; no near opposition; exceptional and genuine opportunity for chemist with limited capital to acquire at a very low figure; this is a unique offer and is strongly recommended to pharmacists with ambition and initiative.

(C13) NEWCASTLE (NEAR).—Old-established lock-up pharmacy, well-positioned, and possessing good scope for future development; present returns approximately £1,250 per annum; rent, £40; purchase price, £850, which approximates value of stock and fixtures only (no goodwill asked).

(C14) SUSSEX COAST.—Old-established retail business for disposal owing to recent death of proprietor; turnover for last financial year approximately £1,200; but there should be no doubt of scope for increase under new energetic ownership; living accommodation; rent, £65 per annum; purchase price £950.

(C15) LONDON, W.—Pharmacy, lock-up, showing returns of approximately £20 weekly; rent, £60; lease 21 years; purchase price, £500, including stock and fixtures, approximately £400.

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**BLACKPOOL (Near).**—Opportunity for Chemist or Limited Company to secure Pharmacy in growing district; Kodak; double-fronted corner premises, with living accommodation (nine rooms); must sell for health and family reasons; price for fittings, etc., £350; stock approximately £300; sacrifice £575 the lot; property rent or sell (sale preferred on mortgage); opening Optics, etc.; low rates; other particulars at interview only. 354/16, Office of this Paper.

**BOURNEMOUTH.**—Well-known Chemist's and Druggist's; fine main road position, heart busy shopping centre; expensively-fitted double-fronted shop; modern house; garage; turnover £50 weekly and steadily increasing; big scope, with exceptional prospects; new 21 years' lease, or sell freehold; ingoing £2,000 as it stands, including large stock (estimated £1,000). Griffiths Preese, Bournemouth.

**KENT.**—Old-established Pharmacy Business, Optical connection, sold in consequence of death of proprietor; main business thoroughfare, close to 'bus stop and public car park; good dwelling accommodation; average takings last three years £3,496; full investigation; freehold, £3,000; goodwill, fixtures and fittings, £1,000; stock at valuation, approx. £1,000; sound concern. Lee & Son, Business Agents, Ashford, Kent. Tel. 88.

**LIVERPOOL (43 Overbury Street).**—Neat, compact, lock-up Chemist's Shop in well-populated, working-class neighbourhood; good position for N.H.I. and well stocked; low rent, 15s/6d. a week clear; for disposal owing to ill-health; price required for stock, fixtures and goodwill, £100. A. Clay, 350 Gt. Howard Street, Liverpool.

**LONDON (Western Suburb).**—Old-established, well-fitted Shop and Living-rooms; valuable long lease; rent only £40; net profits £285; capable improvement; price £475, including £250 stock; worth immediate attention. Preston & Partners, 29 Ludgate Hill, E.C.

**LONDON, SOUTH-EAST.**—Established 100 years, in extremely busy main road, densely populated working-class district, with great need for N.H.I.; shop and parlour; rent 30s. per week inclusive; lease 10 years; price £200, or best offer, plus about £80 stock. Write Elliott, 115 Borough High Street, S.E.1.

**LONDON, WEST.**—Exceptional opportunity to acquire small Chemist's Business; no near opposition; lock-up shop (living accommodation near if required); price £165, or reasonable offer entertained owing to ill-health; possession arranged to suit purchaser; cash terms only. 335/10, Office of this Paper.

**SOUTH YORKSHIRE (main street, industrial area).**—Attractive lock-up Pharmacy with Store Room; easy rent; established 20 years; good N.H.I., profitable Photographic and counter trade; good reasons for disposal; principals only. 333/35, Office of this Paper.

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## BUSINESSES WANTED.

**A PRIVATE** limited company requires immediately Businesses in Manchester; would prefer lock-up shops with a turnover of not less than £50, plus N.H.I., with proportionate overhead charges. All replies treated in strictest confidence. 353/11, Office of this Paper.

**A QUALIFIED** Chemist is prepared to pay cash for a business doing in the neighbourhood of £1,250; anywhere in England; properly purchased on mortgage if reasonable; living accommodation essential. Full particulars, with reasons for disposal, will be treated in strict confidence. 334/36, Office of this Paper.

**NORTH LONDON.**—Cash Business, with N.H.I. Dispensing; reasonable rent and lease; total returns must be at least £5,000; for the right concern a very good price will be paid. Apply in confidence to Orridge & Co., 56 Ludgate Hill, E.C.4. Telephone: City 2285.

## PREMISES TO LET.

**NO PREMIUM.**—Commanding Shop to Let in busy trading centre at Norbury; frontage 22 ft.; very suitable for Chemist; excellent self-contained flat over and space for garage; modern shop front installed; rent £140 per annum. Waters, Ltd., 668 High Road, Streatham. 'Phone: Pollards 2232.

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**LEYLAND (Near Preston).**—For Sale, new well-built Freehold Shop and House, in Stausfield Lane, main road to Preston; suitable for Chemist, none in neighbourhood; contents: shop, living-room, kitchen, four bedrooms, bath and w.c., electric; growing district; £750. Apply I. Whitehead, 5 Hough Lane, Leyland.

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**TO** Overseas Manufacturers of Proprietary Preparations for the Medical, Dental and Veterinary Professions. Correspondence invited from Manufacturers desiring to depute the Manufacture, Packing, Sales Distribution, Advertising and Storage to a British Company of 30 years' highest reputation, possessing established sales organisation throughout Great Britain, Ireland and India. Inquiries strictly confidential. 213/626, Office of this Paper.

**LEGAL NOTICE.**

**JOHN HENRY MONTAGUE**, deceased.  
**PURSUANT** to a Judgment of the Chancery Division of the High Court of Justice dated the 7th day of November 1932 made in an action. In the Matter of the Estate of John Henry Montague deceased Eschmann Bros. and Walsh Limited against Montague 1932 M. No. 3558, the Creditors of John Henry Montague late of 69 New Bond Street in the City of Westminster who died on the 4th day of October 1931 are on or before the 31st day of January 1933 to send by post prepaid to Arthur Winch of 41 Bedford Row, London, W.C.1, Solicitor their full Christian and Surnames addresses and descriptions the full particulars of their Claims a statement of their accounts and the nature of the securities (if any) held by them or in default thereof they will be peremptorily excluded from the benefit of the said Judgment unless the Court or Judge on application otherwise orders.

Every Claimant holding any security is to produce the same before Master Watkin Williams at the Chambers of the Judge Room No. 157 at the Royal Courts of Justice, Strand, London on Wednesday the 8th day of February 1933 at 12.0 o'clock noon being the time appointed for adjudicating on the Claims.

A Claimant not residing in England or Wales must send with particulars of his Claim the name and address of a person in England or Wales to whom notices to the Claimant can be sent.

Dated this 2nd day of December, 1932.

**WRINCH & FISHER,**  
 of 41 Bedford Row, W.C.1,  
 Solicitors for the Executrix of the Will  
 of the said John Henry Montague.

**SALES BY AUCTION.**

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**FRANK G. BOWEN, LTD.,**

Will Sell by Auction, on the Premises as above, on Tuesday, December 20, 1932, at 1 o'clock.

On View day prior and morning of Sale. Catalogues may be had of Messrs. Durrant, Cooper & Hambling, Solicitors, 70-1 Gracechurch Street, E.C.3; of the Receiver, O. Sunderland, Esq., Chartered Accountant, 15 Eastcheap, E.C.3; and of the Auctioneers, 62a Aldersgate Street, and Hare Court, London, E.C.1.

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**QUALIFIED** Chemist required as Working Partner to established Druggist, to manage Branch Shop in London suburb; invest £100; many advantages over starting own business, but must be content with moderate returns at start. P.C.B. 57/22, Office of this Paper.

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**A** SMART boy, of good family, having passed Matriculation or Higher Certificate, required for 3 years' Apprenticeship in good-class premises; efficient training given; premium, 20 guineas. D. C. Hampson, B.Sc., M.P.S., 6 King Street, Leigh, Lancs.

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6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

**CITY OF BRADFORD CO-OPERATIVE SOCIETY, LTD.**—Drug, Dispensing and Photographic Department. Wanted, Manager and Buyer for the above department; must be qualified and efficient in all sections of the trade and able to control staffs at Central and Branches. Salary N.U.C.O. scale. Applications, stating age, experience, with two references of recent date, to be sent to the Secretary, City of Bradford Co-operative Society, Ltd., 65 Sunbridge Road, Bradford, not later than December 12, 1932, endorsed "Drug Department."

**LEEDS.**—Qualified Optician (registered J.C.Q.O.) with pharmaceutical experience (but not pharmacologically qualified); must be tactful and courteous; would consider applications from those requiring part time off for pharmacy classes; state full particulars; enclose photo if possible (returnable). 334/33, Office of this Paper.

**LONDON, S.E.**—Required early in January, qualified Manager, lady or gentleman, for middle-class business. Applicants please give full particulars of experience, age and salary expected. Letters not answered in seven days respectfully declined. 335/11, Office of this Paper.

**LONDON, N.**—Wanted, young married man, qualified, for run-down branch; Optics if possible; house attached; medium-class Retail. Full particulars as to age, experience, height, salary required, photo if possible (to be returned). 333/22, Office of this Paper.

**MANCHESTER.**—Smart Qualified Man wanted for good-class Branch; energetic, pleasing personality; good Salesman and Window-dresser, knowledge of Photography, accurate Dispenser. State age, salary, experience, and enclose copies of references. Latewards, Ltd., 389 Ashton New Road, Manchester.

**MALE** Assistant, unqualified, required, good Salesman and Dispenser, young, for week ending Christmas eve. Apply, with references, to Dudley Pring, 60 Westhorpe Avenue, Eltham, S.E.9.

**QUALIFIED** Assistant required at once for Branch Management, not under 25; good recent references. Photo and full particulars to Lester, Chemist, St. Dunstan's, Canterbury.

**QUALIFIED** Assistants over 25 years; smart appearance; West-End experience preferred. Write only, Superintendent, Heppells, 34 Osnaaburgh Street, N.W.1.

**UNQUALIFIED** Assistant; temporary post at once until Christmas, with possibility of permanency; good Counter experience essential. State age, height and salary required. Morrell & Dixon, 7 Central Parade, Wembley.

**UNQUALIFIED** lady Relief; Toilet, light Dispensing; December 18-24. 213/643, Office of this Paper.

**WANTED,** a Qualified Locum, 28-35, for two or three months, capable of taking charge; good Prescriber and Window-dresser. References must bear strict investigation. Apply personally, Cross, 566 Hertford Road, Enfield Highway.

**PHOTOGRAPHS, TESTIMONIALS, &c.**

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. As can be readily understood, when an advertiser receives from 60 to 100 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

## WHOLESALE.

**EXPERIENCED** Representative (qualified Chemist) required to call on Doctors, Chemists, Hospitals, etc. Write, stating age, experience and salary required, to 213/642, Office of this Paper.

**LONDON.**—Wholesale Business requires young lady, quick and accurate at figures; knowledge of book-keeping essential; capable of working on own initiative. Apply in own handwriting, stating experience and salary required, to 334/13, Office of this Paper.

**COST** Clerk and efficient Typist wanted by London Wholesale and Export Chemists and Druggists; must have had similar experience in the costing of manufactured drugs and all classes of pharmaceutical preparations. Only those with similar previous experience need apply, stating age, salary expected, and full particulars, P.C.B. 57/34, Office of this Paper.

**JUNIOR** Typist required, used to Telephone and Filing. Apply 333/37, Office of this Paper.

**OLD-ESTABLISHED** London Wholesale Chemists and Manufacturing Druggists (owning a well-known Proprietary) require a Representative with a sound connection in Drugs for the Eastern and Southern Midland Counties; good salary and expenses; no applicants under 30 years of age considered. Full details of trade experience and connection required with all personal references available. Replies to 213/639, Office of this Paper.

**REQUIRED** by London Wholesale Drug House, young man to take charge Home Department, pricing, invoicing and despatch; must have had previous experience in similar capacity; good prospects. Write (in confidence), with full particulars, salary, etc., to 213/638, Office of this Paper.

**TRAVELLERS** calling on Chemists can have "Imperial Mandarin" China Tea (super quality), in packets, to place on remunerative commission basis. Particulars to "W." Box 273, Bensons, Kingsway Hall, W.C.2.

**WANTED** by leading Wholesale House, young Pharmacist, preferably with some knowledge of Bacteriology. Applicants should describe their experience in detail. Replies to 327/27, Office of this Paper.

**WANTED, JANUARY 1, 1933.**—Manufacturers of high-class Medical Proprieties require several Representatives to call upon Doctors, Chemists, Dentists, Veterinary Surgeons, Hospitals and Institutions on commission basis and part expenses; staunch support guaranteed and permanent salaried positions assured to successful salesmen after preliminary trial. State fully sales record, territory covered, firms represented, and age. 213/640, Office of this Paper.

**YOUNG**, qualified Chemist required for Packed Goods, etc.; some experience manufacturing and costing essential. State age, experience, and salary required. P.C.B. 57/35, Office of this Paper.

## APARTMENTS.

**WHEN YOU COME TO LONDON STAY AT THE HAMPDEN RESIDENTIAL CLUB.**

**FOR** gentlemen. Hampden Street, N.W.1. Close to King's Cross and Euston. 300 bedrooms. 12s. 6d. to 25s. per week, including baths, attendance and boot cleaning. All meals à la carte in dining room. Moderate tariff. Large Club Rooms, Library, Billiards Room, Reading Room and Study for Students. Illustrated Prospectus from Secretary. Museum 3424.

## SITUATIONS WANTED.

## RETAIL (HOME).

**A.A.A.A.**—QUALIFIED, 25, requires berth; 6 years' London and provincial experience; moderate salary; disengaged. Harris, 25 Holmdale Road, N.W.6.

**A.A.A.A.**—YOUNG Pharmacist, Matriculant, of good appearance and address, desires post in London pharmacy; could be free in one month; interview would oblige; salary moderate. 334/35, Office of this Paper.

**A.A.A.**—QUALIFIED; 27; keen; energetic; reliable. London and provincial experience; Managership preferred. Gordon, 119 Park Lane, N.15.

**A.A.A.**—QUALIFIED; Manager or Assistant; excellent Window-dresser, Dispenser (Square trained) a Counterman; permanency or Locum; smart appearance; the highest references; disengaged. J. Simmonds, 11 East Ten Street, Minorities, E.C.3.

**A.A.A.**—EXPERIENCED Manager, abstainer, qualified 1919, age 36, seeks post, London, middle-class business. "Chemist," 7/8 Leicester Place, W.C.2.

**A.A.**—ADVERTISER; unqualified; tall; 19 years' experience; whole or part time; reliable; abstainer; not disengaged. Alexander, 189 Southampton Street, S.E.5.

**A.A.**—QUALIFIED; 34; Assistant or Manager; experience all branches; disengaged. "Chemist," 50 Grosvenor Lane, Camberwell, S.E.5. Phone: Rodney 2719.

**A.A.**—ASSISTANT, 20, requires permanency; 5 years' experience, Dispensing (Insurance and Private); good references; W. London preferred, but not essential; disengaged. "K.," 47 Aldbourne Road, W.12.

**A.A.**—QUALIFIED, 25, best type experience, practical and conscientious, of good address. "M.P.S.," Bensham Manor Road, Thornton Heath.

**A.A.**—QUALIFIED Manager, 38, competent business builder, seeks responsible position, private pharmacist sole charge; London suburbs; excellent Prescriber; experience all branches; thoroughly conscientious; quick and capable; smart appearance, with tact and personality; proved ability; £4 a week with house. 335/19, Office of this Paper.

**A.Y.Z.**—Start the New Year well with a qualified Manager; competent business builder; experience in West End, City, suburbs; keen, quick, capable, tactful and conscientious; ability proved; sole charge. Write "A.Y.Z." 92 Charing Cross Road, London.

**A** CAPABLE, all-round Assistant, age 32, desires permanency in good-class pharmacy; first-class references and experience; South or South-West Counties preferred. "M. J.," 44 St. Road, Stroud, Glos.

**A** PHARMACIST-OPTICIAN, M.P.S., F.B.O.A., F.I.O.C. J.C.Q.O., 20 years' managing experience, London provinces, desires change; scope; initiative; keen, tactful, business acumen, clever Prescriber, expert Windows, Photograph Agricultural; own Optical Equipment; excellent references; living accommodation preferred; abstainer; free January. 335/1, Office of this Paper.

**A** QUALIFIED Chemist, 32, seeks part-time or Locum work for about four months; registered N.P.U.; well experienced in Dispensing, Counter, Photographic and Optical; moderate salary. Morgan, 111 Woodlands, Golders Green, N.W.11.

**A** QUALIFIED, experienced Manager; disengaged; over 9 years last berth; London or suburbs. Davies, 10 Alexandra Drive, Surbiton, Surrey.

**A** QUALIFIED Assistant or Manager desires post; fair all-round experience. 334/25, Office of this Paper.

**A** N old bucket is better than a sieve. Reliability is more important than brilliancy. Qualified, in the forties, active, reliable, experienced, College Medalist, excellent references desires Managership or relief. Harris, 6 Guthrie Street, S.W.

**A** S Assistant, Locum, Manager; whole or part time; good sound experience, Dispensing, Counter. "Prescriber," 12 Scott-Ellis Gardens, N.W.8.

**A** SSISTANT, unqualified, 35, married, desires permanency capable Dispenser, thorough experience Retail, Counter Window-dressing, Photographics, also knowledge of Wholesale Geo. Dodd, 108 Fieldend Road, Streatham Vale, S.W.16.

**A** SSISTANT; unqualified; 40; trustworthy; experienced all branches; excellent references; moderate salary; disengaged Christmas. "Rhei," 8 Etonwick Road, Eton, Bucks.

## NAMES AND ADDRESSES.

When sending advertisements for any of the sections in this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not followed and delay and disappointment ensues. Strict attention to this detail will be appreciated.

**ASSISTANT**, unqualified, capable, energetic and trustworthy, good references, studying for Part I (part time), wants position, preferably in Liverpool. H. Francy, 38 Brownmoor Park, Gt. Crosby.

**ASSISTANT** (25), unqualified, desires situation, any capacity; experienced Dispensing, Window-dressing, Counter work, Prescribing, Photography; University education; good appearance; has taken charge; free immediately. 334/39, Office of this Paper.

**AT LIBERTY**.—Qualified, experienced all-round Pharmacist; good Dispenser, accustomed to rapid N.H.I. work; Locum (any distance); suitable permanency London area entertained; elderly; active. Moody, 28 Torrington Gardens, N.11. 'Phone: 1751 Palmers Green.

**BRIGHTON OR NEAR**.—Lady Assistant, Dispenser, requires post (Hall); good all-round experience; moderate salary. 8 Prestonville Road, Brighton.

**DISENGAGED**; trustworthy, Unqualified Assistant (33); abstainer; 15 years' city, town and seaside experience; temporary or permanent. C. T. Perkins, 45 Canon Street, Shrewsbury.

**LADY** Assistant requires temporary or permanent position; 5 years' first-class town and seaside experience; no dispensing. 335/23, Office of this Paper.

**LOCUM** or temporary; M.P.S.; young; varied experience; good references; disengaged. Mounsey, 7 Grove Street, Morecambe, Lancs.

**LOCUM** or emergency relief; disengaged; long experience; thoroughly competent; any distance, position or period. "Chemicus," 56 Rudloe Road, Balham.

**M.P.S.**, disposing of own business, desires post as Manager or Assistant early in the New Year. 334/10, Office of this Paper.

**M.P.S.**, qualified Optician; disengaged; Manager; Locum, permanency; thoroughly experienced as manager for 20 years, all branches Retail business, London, City and suburbs. "Chemist-Optician," 21 Kidbrooke Lane, Eltham, S.E.9.

**M.P.S.**, middle-aged; Locum or suitable permanency; disengaged; references; £3, permanent. "S," 32 Steyne Gardens, Worthing.

**MR. JAMES W. HARPER**, Chemist, Hatrogate, can strongly recommend Mr. Eric Spencer as a thoroughly reliable Qualified Assistant or Manager. He has given me excellent service for four years. Apply Spencer, 32 Wood Side, Hatrogate.

**PHARMACIST**.—Locum or emergency relief; 45; disengaged; London and provincial experience; any distance. Howell, 20 Working Street, Cardiff.

**QUALIFIED**, 22½; Manager, Assistant or Locum; 5 years' good all-round experience; reliable and conscientious. Massey, Pilsley, Chesterfield.

**QUALIFIED** lady, 26, 9 years' genuine experience, wants position immediately. "Advertiser," 144 Ramsden Road, Balham.

**QUALIFIED**; 35; Manager, Assistant; 17 years' all-round London and provincial experience; abstainer; reliable; moderate salary. Head, 98 Pasley Street, Devonport.

**QUALIFIED**; 36; married; Manager or Assistant; first-class Dispensing experience; excellent references. Hardy, 27 Shaftesbury Road, Bath.

**QUALIFIED**, 23, requires post as Dispenser; experienced; salary £2 10s. Denny, c/o Mrs. Everson, High Street, Loddon, Norwich.

**QUALIFIED** lady, 25, desires position in London; good all-round experience, Dispensing, Counter; disengaged. "Pharmacist," 503 Commercial Road, E.1.

**QUALIFIED**, 24, Scot, tall, West-End Dispensing experience, desires permanency. 335/26, Office of this Paper.

**SCOT**, 23, qualified, 6 years' experience, wishes situation for approximately one year in good-class town or country pharmacy (South of England preferred, though any district considered) to obtain sound business knowledge; interested if owner is considering retiring; moderate salary. Further particulars and testimonials on application. 332/15, Office of this Paper.

**SCOT**, qualified, 23, tall, abstainer, desires permanency; all-round experience; good references. Adam, Main Street, Buckie, Banffs.

**YOUNG** Lady Assistant (unqualified) requires post with Doctor or Chemist; experience, Dispensing with high-class Chemist; excellent reference. 334/32, Office of this Paper.

### WHOLESALE.

**A FIRST-CLASS** Representative for Cheshire, Lancashire, Yorkshire and the North, 9 years with well-known firm, highly recommended by a member of the Pharmaceutical Council, seeks position with a firm of repute; keen, energetic, and efficient Salesman; would reside on any territory; own saloon car. 333/32, Office of this Paper.

**AGENCY** required; 20 years' connection in the North of England with Chemists, Stores, Hairdressers, etc. Apply 333/36, Office of this Paper.

**CHEMIST'S** Son (15 years' Retail) desires to represent Drug House of repute, or Sundries; energetic and thoroughly trustworthy. 335/16, Office of this Paper.

**GENTLEMAN**, with Pharmaceutical qualification, on the Board of a firm of Manufacturing Chemists, is desirous of joining a progressive firm in the New Year; position held for 12 years. Apply 213/644, Office of this Paper.

**QUALIFIED** Chemist, 30, desires post as London and/or Home Counties Representative for well-known House; excellent references. 335/14, Office of this Paper.

**QUALIFIED** Chemist, age 29, height 6 ft., Public School, requires position as Representative with established firm; thorough knowledge of all branches of the trade; good personality; keen and adaptable; excellent references; own car. 335/22, Office of this Paper.

**SALES MANAGEMENT**.—A live man of energy, ideas, and enthusiasm, with a wide and varied connection, wishes to establish contact with a Manufacturing concern whose board recognise the need of reconstruction of their selling force, administrative organisation, and the application of modern scientific marketing methods. This inquiry is prompted solely by a desire to create an opening whereby hard work, ability, loyalty, and actual results are justly rewarded and upon which a concrete future can be built. 333/26, Office of this Paper.

**SALESMAN** Representative; disengaged; has the confidence of Chemists in London and South-Western Counties; considerable experience; good address; own car; salary and expenses basis. "Ability," P.C.B. 57/27, Office of this Paper.

## THE SUPPLY of SUPPLEMENTS

The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note, therefore, that in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case the name and full postal address should be written on

**Post Office Wrappers, Stamped ONE PENNY, to ensure prompt delivery.**

**If wrappers bear a halfpenny stamp only, postal delivery is delayed.**

**LOOSE STAMPS WILL NOT BE ACCEPTED.**

## P.A.T.A. Council Election

I am standing as a candidate at the request of the Executive Committee of the London County Pharmaceutical Association.

My programme is:

1. More rigorous action against persistent cutters.
2. Closer supervision of Co-operative Societies.
3. Cutting out irresponsible wholesalers.
4. Stricter conditions before a name is removed from Stop List.

If elected I will do all in my power to make the work of the Association more effective in every way.

**E. SKUES**

219 Upper Tooting Road,  
S.W.17.

Do not fail to record your vote; at the last election only about 25% of the voting papers were returned.

## CLEAR OUT—your Old or Damaged Stock of Photo Goods

Why keep them any longer? Turn them into CASH.  
**I GIVE BEST PRICES** for Old Films (damaged, fogged or expired dates); Packet Papers, Cards (any sizes), Old Photo Goods or Cameras, Bromide Papers, Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.  
**S. E. HACKETT, 23 July Road, Liverpool**

## TO SELL for GREAT BRITAIN and DOMINIONS FIRST CLASS FACTORY PROCESS for the Manufacture of VANILLIN FROM GUAIACOL and other Good Chemical Factory Processes.

Opportunity to form a company for the manufacture of Pharmaceutical and Fine Chemicals. P.C.B. 56/4

FOR disposal, about 36 dozen 2s. 6d. Wardonia Chubby Sets, also 90 cards containing six packets 5's Wardonia Razor Blades with 270 Razors; accept low offer for cash. 213/641, Office of this Paper.

**MAHOGANY FITTINGS**—12 ft. complete Drug Fitting, 9 ft. Wall Case, 10 ft. Wall Case, 10 ft. Soring Counter, glass case front; 6 ft. Mirror centre Dispensing Screen; 5 ft. all-glass Counter; all-glass Salesman, 5 ft. 10 in. high, 2 ft. x 25 in. 3 glass shelves; Wall Case, 7 ft. high, 4 ft. 6 in. wide, 12 in. deep, 4 wood shelves; two 4 ft. nest Counter Drawers. All bargains. Over 40 years' experience. **GEORGE COOK, The Working Shopfitter, 27 Macclesfield Street, City Road, E.C.1.** Phone: Clerkenwell 5371.

**£?—COMPLETE CHEMIST FITTINGS** at any price you wish to pay. We have erected in our showroom a Complete Chemist Shop with Metal Shop Front, Window Backs, Correct Window Lighting Signs and Modern Interior Fittings. Apply for Lists. **D. MATTHEWS & SON, LTD., "The Liverpool Shop Fitters," 14 and 16 Manchester Street, Liverpool. Est. 1848.**

## MISCELLANEOUS.

10s. for 60 words or less; 1s. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

**A FINE PHARMACY** can now be fitted complete ready for opening from £95 upwards. Old-time shops modernised and brought up to date at lowest prices. Many recent testimonials. Designs, advice and prices free from **PHILIP JOSEPHS & SONS, LTD., Pharmacy Fitters for 107 years, 90/92 St. John Street, Clerkenwell, London, E.C.**

**ATTRACTIVE BARGAINS** in reconditioned Second-hand Chemist Fittings, various sizes and styles, sold singly or in sets. Visit our Showrooms or write your particulars. **RUDDUCK & CO., 219/227 Old Street, London, E.C.1.**

**CHEMISTS' FITTINGS**—We hold an immense stock of Drug Fittings, Dispensing Screens, Glass Fronted Counters, Perfumery Cases, Nests of Drawers, Wall Cases, Silent Salesmen, Upright and Flat Counter Cases, Plate-glass Counters, Cash Tills, Display Stands and Glass Shelves, etc., ready for immediate delivery at competitive prices. Write or call for List. **F. MAUND & E. BERG (SHOWCASES), LTD., 175/9 and 336 Old Street, London, E.C.1.**

**CHEMISTS' Fittings**, direct from manufacturer; soundly constructed in oak and mahogany; 8 ft. Drug Run, £18; 6 ft. Dispensing Screen, £14; 6 ft. Showcase Fronted Counter, £8 6s.; 6 ft. Wall Case, £11; 6 ft. Glass Counter, £8 15s.; Counter Case 30 x 24 x 18, £2 5s., etc. Send now for photographs, or call and inspect. **MYERS, Complete Chemist Fitters, 134a Kingsland Road, E.2, near Shoreditch Church. Bishopsgate 2524.**

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

## EXCHANGE COLUMN.

### FOR DISPOSAL.

(Articles up to the value of £5.)

**ANALYTICAL BALANCE**, Oertling long-beam; excellent condition; £4 or nearest offer. **Johnston, Ph.C., 19 Holland Road, C.-c.-H., Manchester.**

**OVERSTOCKED**—2 x 10s. Sanmetto; two Horsfords Ac. Phosph.; 1 x 4s. 6d.; Bishop's Maxils; 2 x 4s. Colchie. Sal.; Liq. Pept.; 1 x Pepsencia; 6s. Byno Pancreatin, etc. What price? Also Optical Trial Case (almost new). Apply "Chemist," 23 Pulborough Road, S.W.18.

### WANTED.

**DYER, Chemist, Honiton**, requires ½ dozen Roger & Gallet's Efflora Perfume, 1 oz. Anyone having surplus please communicate

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require Partners, Agents or Assistants, or wish to Sell their Businesses, an Advertisement in this Supplement placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given on the front page of this Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.